

Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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An Introductory Note...

THIS SPECIALIZED ISSUE of the Monthly Labor Review is essentially the product of the Employment and Occupational Outlook Branch of the Bureau of Labor Statistics. It is the fourth in the specialized series, the first of which appeared in July 1946, and differs from its three predecessors which dealt with economic-geographic areas (New England, the South, and the Pacific Coast).

Ten years ago—even 5 years ago—the general tenor of articles on the different phases of employment would have been quite different. A decade ago the United States was emerging from a severe and prolonged depression. Five years ago the largest and most rapid expansion of the labor force that this country has experienced was in progress. Today, perhaps, the country is as close to full employment as it can ever come. Therefore, it is proper and valuable to examine the developments within the labor force, both with respect to the labor force as a whole and to special groups within it, as well as the changes which have occurred in the employment status of those who comprise it, and the occupational shifts which have occurred and may follow. This has been done in parts 1 and 2 of the present issue.

It is also valuable at this particular juncture in history to examine two other factors: the effect which export trade has upon United States employment; and the human resources possessed by those European nations which have agreed to unite in the European Economic Recovery Program. The results of this examination constitute part 3.

In the preparation of this issue, the Bureau is grateful to three other governmental agencies which contributed to the contents. These are the Bureau of Agricultural Economics which supplied the article on Trends in Agricultural Employment; the Women's Bureau which contributed Women Workers and Recent Economic Change; and the Child Labor Branch of the Wage and Hour and Public Contracts Division which furnished the article on Employment Problems of Out-of-School Youth.

The Bureau of the Census also made available data from the Monthly Report on the Labor Force.

Seymour L. Wolfbein, Chief of the Occupational Outlook Division of the Bureau, directed and planned this issue, and assumed major responsibility for editing and integrating the several articles.

—L. R. K.

The Labor Month in Review

A PROGRAM OF SELECTIVE CONTROLS over credit, domestic and export consumption, prices and wages, as a means of controlling inflation, was laid before Congress by the President in his message opening the special session on November 17.

Of special interest to labor were a group of anti-inflation measures, recommended by the President, which would deal directly with specific high prices in "limited areas of acute danger." Legislation was recommended "to impose price ceilings on vital commodities in short supply that basically affect the cost of living," and also on commodities "that basically affect industrial production. * * * The Rent Control Law should be extended and the weaknesses in the present law should be corrected." Authority was requested "as a preparedness measure, to ration basic cost-of-living items on a highly selective basis." As a final control the President stated: "If the Government imposes price ceilings covering a specific area of production, it should in all fairness have the authority in that same area to prevent wage increases which will make it impossible to maintain the price ceilings."

Another group of measures which the President outlined are designed to "relieve monetary pressures." They would restore consumer-credit controls, "restrain the creation of inflationary bank credit," and regulate "speculative trading on the commodity exchanges."

A number of legislative enactments would be required for the second part of the President's program to "secure the most efficient use of scarce goods and otherwise channel their flow so as to relieve inflationary pressure." Measures were requested to broaden and extend beyond their expiration date (next February) export controls, allocation of transportation equipment and facilities, and allocation and inventory controls of "scarce commodities which basically affect the

cost of living or basically affect industrial production." Additional grain- and food-conservation authority was also requested.

Wage-Price Prospects

The threatened emergency which occasioned these recommendations was the danger of a new spiral of price and wage increases. The continued rise in prices, especially for foods and rents, during the summer and fall of 1947 raised the cost of living to a succession of peaks month after month from June to September. Wholesale prices also continued to advance during November. The general price level was 1.5 percent higher at the end of November than at the beginning; and increases were widespread throughout the price structure.

The consumers' price index was no higher in October than in September, because of a decline in prices of foods, particularly meat, butter, and eggs; but most principal components other than food increased. For 1948, the Department of Agriculture has forecast smaller supplies and higher prices of meats, and perhaps of some other foods; and the expiration of rent control in March would accelerate the increases in rents. With respect to other prices, the Secretary of Labor testified, in supporting the President's program: "There is no major segment of the price structure in which we can confidently expect declines in the near future."

The rise in living costs since the mid-year was given explicitly as the grounds on which further wage increases would be sought. "Third round" wage increases continued to be discussed prominently during November, but future demands appeared to be much more important than the increases actually agreed upon so far. A 9-percent increase in certain southern textile mills, and a 12½ cent an hour raise for the Amalgamated Clothing Workers were the significant third-round increases during the month. The new wage contract of West Coast oil workers incorporates as a permanent part of the wage structure a previously granted cost-of-living bonus. Meanwhile, average hourly earnings in manufacturing increased slightly in October to \$1.26, due largely to increased overtime as operations expanded seasonally in many industries. Average weekly earnings were also at a new record of \$50.97.

The AFL in October indicated that wage raises would be sought by its unions and the leaders of

the CIO early in December stated that significant wage increases would be demanded by their unions. CIO unions whose contracts expire early in 1948 and which may be expected to demand increases are the textile workers in the northern mills, maritime, automobile, glass, and electrical workers. Contracts may now be reopened at any time in meat packing and rubber and after April 1 in steel. Neither the AFL nor the CIO has as yet responded to the suggestion of Secretary of Labor Schwellenbach, who appeared before the House Banking and Currency Committee in support of the President's anti-inflation program, that labor should defer demands for wage increases if the cost of living was reduced through price control and rationing. The Secretary recommended that authority for wage ceilings be granted for the few cases where it might be needed, but that wages should and might be held voluntarily if the cost of living could be lowered.

Secretary Schwellenbach also appeared before a subcommittee of the House Committee on Education and Labor to advocate an increase to 75 cents in the minimum wage under the Fair Labor Standards Act, with industry committees authorized to reduce the minimum to 65 cents in hardship cases. The Secretary pointed out that the 75-cent minimum was needed to meet the increased cost of living and to restore the wage relationships which prevailed when the 40-cent minimum was established. He also defended the overtime provisions of the act which have been called into question by business leaders and some members of Congress.

Proposal for FLSA Revisions

The proposal to modify the overtime premium provisions of the Fair Labor Standards Act to encourage a workweek longer than 40 hours is based on the belief that the reduction in costs will induce producers to expand production by increasing hours. The Secretary of Labor testified that he did not believe such changes in the act were necessary.

From present indications it does not appear that the added cost of overtime is a real deterrent to production when demand is strong, since the increase, when spread over the whole week, is small. As a matter of fact, average hours worked in manufacturing in October were 40.5, indicating an average scheduled workweek of

about 43 hours. In the durable goods industries actual hours worked averaged 41 per week, higher than any month since the end of 1945. Furthermore, production is not always directly correlated with the number of hours worked. For example, although the workday in bituminous coal mining is 1 hour less under the new contract than it was before, daily production appears to have remained about as high.

Where shortages of materials or capacity is the retarding factor, as in the case of steel and steel products, production cannot be increased regardless of the cost of increased hours. In the steel industry itself, production is carried on around the clock, so that capacity is already fully utilized, although the workers are on a 40-hour week. Furthermore, a substantial part of industry covered by the Fair Labor Standards Act is also covered by union contracts with overtime provisions after 40 hours or even less.

Industrial Relations Peaceful

Industrial relations continue to be relatively peaceful. With the settlement of the shipbuilding strike on November 8, man-days lost in November due to strikes is expected to reach a postwar low. With a few exceptions, there seems to be no immediate prospect for any nationally important strikes.

No important test of the Labor Management Relations Act has, as yet, been made. Since the changes made in the Wagner Act have on the whole had the effect of liberalizing the rights of employers, tests of many of the new provisions will likely come on the initiative of employers. With production in most industries close to capacity and profits at a very satisfactory level, there is no marked tendency on the part of industry to disturb present harmonious industrial relations.

The rising level of industrial and business activity was reflected in a small increase in non-agricultural employment and a small decline in unemployment in November. Unemployment in November, at just over 1.6 million, was at a seasonal low, 300,000 below November 1946. Employment was higher, buoyed up by an early increase in trade and by the prolonged construction season. The number of new houses started in October 1947 (92,000) was equal to the year's high reached in September.

Labor Force Changes and Employment Outlook

1. Changing Size and Composition of Labor Force

AS THE UNITED STATES ECONOMY moved from depression levels of activity to the successive stages of defense preparation, a war boom, reconversion, and peacetime levels of high employment, the working population responded with tremendous shifts in size and composition of labor force, and with marked changes in the pattern of employment both on and off the farm. The impact of these changes and an appraisal of their more lasting effects are discussed in the following four articles.

The war provided concrete evidence of the flexibility and mobility of the labor force, as many millions of men and women joined the working population to meet emergency demands. The effect of these changes on the postwar labor market and the outlook for labor force growth are discussed in the article, Recent Trends in the Labor Force.

In terms of employment, the most striking change occurred in the nonfarm sector of the economy. The differentials in impact of the war upon the various divisions of nonagricultural employment and the effects on postwar employment patterns are discussed against the setting of long-term industrial trends in Industrial Employment in War and Peace.

Although farm employment was more stable during this period, a number of fundamental changes in the agricultural working force did take place. The character of these changes, which included significant shifts in the composition of the farm working population and a great increase in agricultural productivity, together with their implications for the postwar period, are discussed in Trends in Agricultural Employment.

The industrial shifts of the war and postwar periods brought with them marked changes in the occupational distribution of the employed population. Not only did many workers change their occupations, but many learned new skills as well. The effects of these developments, especially on the outlook for employment in the years ahead, are analyzed in the article The Changing Occupational Trends.

Recent Trends in the Labor Force

HAROLD WOOL¹

THE SIZE OF THE LABOR FORCE and the manner of its employment are significant measures of national well-being. The continued growth of the working population, from decade to decade, has contributed greatly to expansion of output and wealth. Changes in the extent of participation by women, youth, and older persons in the labor force have reflected deep-seated changes in the Nation's economic and social life. And, finally, the degree to which labor has been productively employed at various times has been a critical indicator of the national economic health.

Developments during the past 7 years greatly increased the insight into the characteristics of the working population. Its reactions under wartime stress furnished a striking demonstration of its flexibility. Moreover, postwar experience thus far has revealed significant changes in response to the economy's attainment of high levels of employment and income.

An evaluation of this experience set against the background of prewar trends, provides a basis for appraising the nature of prospective changes in the labor force in the years immediately ahead and for longer periods in the future.

Table 1 shows the total labor force, the number in the armed services, and the total of civilian workers with their distribution between agricultural, nonagricultural, and unemployed, by year, from 1929 to 1946.

The Labor Force in 1940

In the spring of 1940, prior to the launching of the National Defense Program, 55 million men and women were in the civilian labor force of the United States.² Their ranks included business-

men, farmers, and unpaid family workers, but the greatest number—about three-fourths of those employed—were wage or salary workers. About 8 million were unemployed.

TABLE 1.—Estimated total labor force, classified by employment status, by years, 1929–46¹

[Annual averages, in millions]

Year	Total labor force ²	Armed forces	Civilian labor force ³				Unem- ployed	
			Total	Employed				
				Total	Agricul- tural	Non- agricul- tural		
1929	49.4	0.3	49.2	47.6	10.4	37.2	1.6	
1930	50.1	.3	49.8	45.5	10.3	35.1	4.3	
1931	50.7	.3	50.4	42.4	10.3	32.2	8.0	
1932	51.2	.2	51.0	39.0	10.2	28.8	12.0	
1933	51.8	.2	51.6	38.8	10.1	28.7	12.8	
1934	52.5	.3	52.2	40.9	9.9	31.0	11.3	
1935	53.1	.3	52.9	42.3	10.1	32.2	10.6	
1936	53.7	.3	53.4	44.4	10.0	34.4	9.0	
1937	54.3	.3	54.0	46.3	9.8	36.5	7.7	
1938	55.0	.3	54.6	44.2	9.7	34.6	10.4	
1939	55.6	.4	55.2	45.8	9.6	36.2	9.5	
1940	56.2	.5	55.6	47.5	9.5	38.0	8.1	
1941	57.5	1.6	55.9	50.4	9.1	41.2	5.6	
1942	60.4	4.0	56.4	53.8	9.2	44.5	2.7	
1943	64.6	9.0	55.5	54.5	9.1	45.4	1.1	
1944	66.0	11.4	54.6	54.0	9.0	45.0	.7	
1945	65.3	11.4	53.9	52.8	8.6	44.2	1.0	
1946	61.0	3.5	57.5	55.2	8.3	46.9	2.3	

¹ Estimates for the period 1940–46 were adapted from U. S. Bureau of the Census, Labor Force Bulletin Series P-50, No. 2. The estimates of total labor force and of the armed forces were adjusted upward to include about 150,000 members of the armed forces stationed outside of the continental United States in 1940, and who were not enumerated in the Census of that date.

Estimates for the period 1929–39 were prepared by the Bureau of Labor Statistics. A detailed description of these estimates will appear in a subsequent issue of the *Monthly Labor Review*.

Because of rounding, the individual figures do not necessarily add to group totals.

² Total labor force includes civilian labor force and the armed forces.

³ Civilian labor force includes persons 14 years of age and over (not in institutions): working for pay or profit; working without pay for 15 hours or more weekly on a family farm or business; or looking for work. Also included as employed are persons with jobs but temporarily absent from work because of vacation, illness, industrial dispute, bad weather, or lay-off with definite instructions to return to work within 30 days of lay-off. Also included as unemployed are persons on public emergency work projects or who would have been looking for work except (a) for temporary illness, (b) because they expected to return to a job from which they had been laid off for an indefinite period, or (c) they believed no work was available for them in the community.

A cross section of the 1940 population of working age revealed marked differences in the extent to which men and women, and persons of various age groups participated in the labor force. As shown in the following tabulation, four-fifths of all men 14 years of age and over, but only slightly more than a fourth of all women, were in the labor force. By age, the greatest relative concentration of workers among men was between 25 and 44 years, and among women, in the group 20 to 24 years. Less than a third of all teen-age youth were in the labor force, and less than a fourth of all persons 65 years of age or over.

¹ Of the Bureau's Occupational Outlook Division.

² For a definition of the civilian labor force as used in this article, see table 1, footnote 3.

Age group	In labor force, week ended March 30, 1940	
	Number (thousands of persons)	Percent of population
Total, 14 years and over...	54,740	54.1
Men:		
14 years and over....	40,900	80.9
14 to 19 years.....	2,840	38.4
20 to 24 years.....	5,080	89.3
25 to 44 years.....	18,980	96.4
45 to 64 years.....	12,090	90.4
65 years and over....	1,910	43.3
Women:		
14 years and over....	13,840	27.4
14 to 19 years.....	1,460	19.9
20 to 24 years.....	2,820	47.8
25 to 44 years.....	6,500	32.5
45 to 64 years.....	2,750	21.6
65 years and over....	310	6.7

¹ Source: U. S. Bureau of the Census, Labor Force Bulletin, Series P-50, No. 2.

The size of the 1940 labor force and the nature of its composition were in large measure the out-growth of long-run trends in population growth and of social and economic changes over many decades. Available data from the decennial census estimates, indicate a continued expansion in the size of the labor force, from over 20 million in 1890 to over 40 million in 1920 and to 55 million in 1940. A large part of these gains resulted from natural growth of the population, as well as from the heavy immigration before and just after World War I. With the slowing down in the rate of population growth following that period, there was evidence of corresponding declines in the rate of increase in the labor force. Thus, during the decade 1920-30, the average annual increase of the working population was about 700,000 (at a rate of 1.6 percent), while in the following decade the average annual increment had dropped to less than 600,000 (a rate of 1.2 percent).

Apart from over-all population movements, significant changes took place in the extent to which different groups of the population participated in the labor force. In 1940 and in earlier years, men between the ages of 25 and 54 years characteristically formed the core of the labor force—virtually all able-bodied men in these ages normally work or seek work. But there was a steady movement of women from the household into the labor market. The growing concentration of population in urban centers, the declining trend in family size, the shifts from heavy manual labor to the use of machines, and the widespread introduction of

labor-saving household devices were major factors which combined to permit the entry of an increasing proportion of women into gainful employment.

The influx of women workers was partly offset, however, by a decline in labor force participation at both age extremes of the population. Public policy, over the years, operated to postpone the entrance of children and youth into the labor market by passage of compulsory school-attendance and child-labor legislation. At the same time, rising income and living standards tended to increase the average length of the schooling period.

For older workers, prewar experience also indicated a declining trend in labor force activity, at least after age 65. This was partly associated with the declining importance of agriculture, which typically offers more scope than urban industry for the older worker. Increasing mechanization of industry, with its dilution of skills and emphasis on speed, also limited employment opportunities for the elderly. And as is pointed out on page 661, public and private programs for old-age pensions and assistance also had the effect of encouraging retirement of older workers.

By 1940, labor force participation reflected, too, the influence of the depressed conditions of the preceding decade. As shown in table 1, unemployment in 1933 had mounted to 13 million, or one-fourth of the labor force, and despite a moderate recovery, the average annual unemployment level during the remainder of the decade at no time dropped below 7½ million.

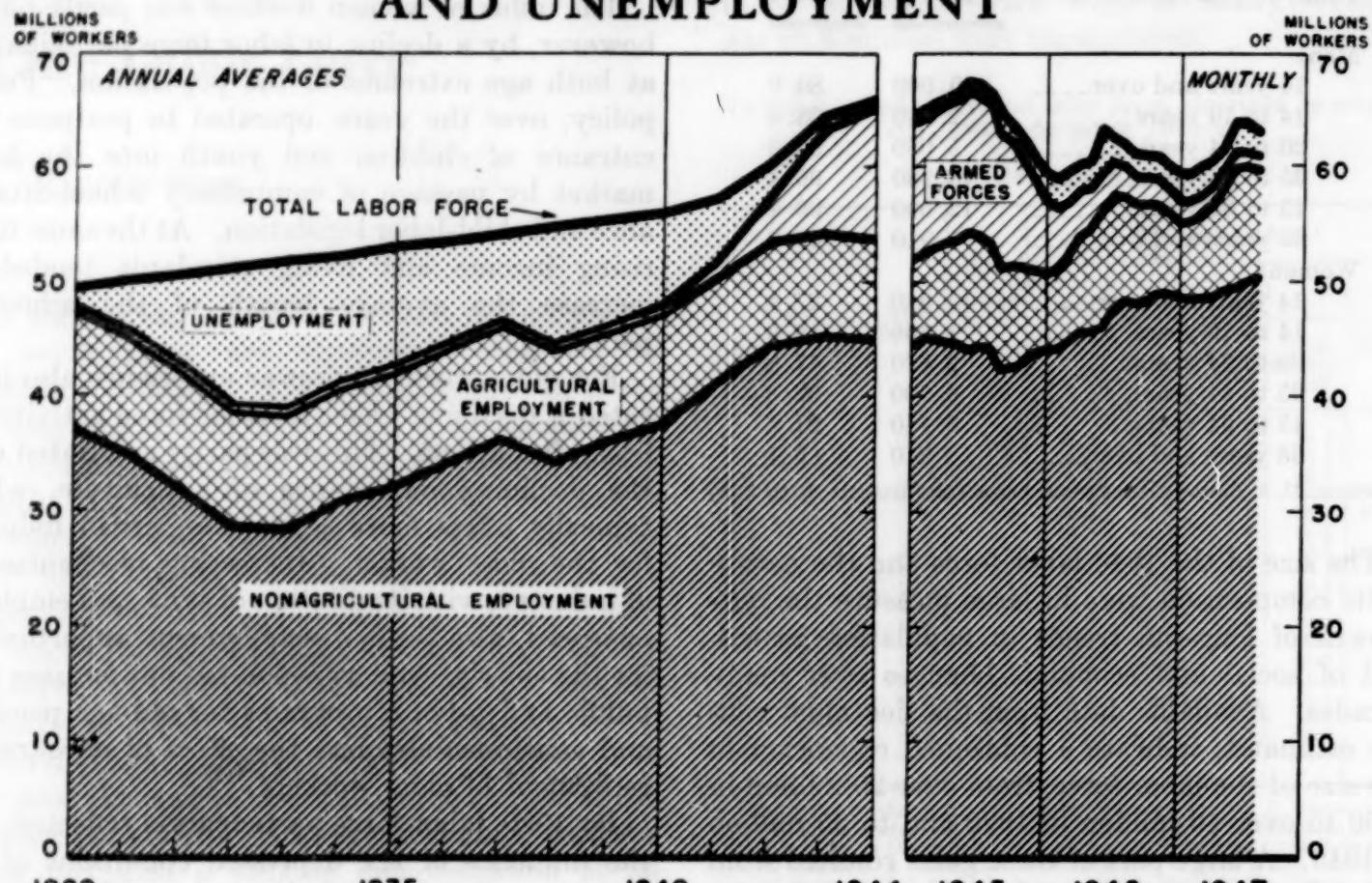
The estimates of the number of employed workers, moreover, concealed a considerable volume of "hidden" unemployment. During the thirties, many workers remained on submarginal farms because of lack of opportunity elsewhere. Self-employment in small urban businesses also was a refuge for many workers who had no other employment opportunities.

The impact of unemployment was particularly severe on the older worker, who—once laid off—found it increasingly difficult to secure reemployment. It is likely that by 1940, after repeated rebuffs, many of the older men and women, who would have been willing to work had jobs been available, considered themselves "too old" to work.

The effect of the depression on the labor force participation of youths and women workers is

CHART I

LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Source: U. S. BUREAU OF LABOR STATISTICS
AND BUREAU OF THE CENSUS

not so clear. Unemployment among family heads obviously exerted strong economic pressure on "secondary workers" to supplement the family income. With the general lack of job opportunity, however, many of these devoted their time to studies or household duties and were not included in the labor force.

Wartime Labor Force Expansion

Economic mobilization for total warfare was accompanied by a striking change in character of the labor market. By mid-1942, shortly after the United States entered the war, the rapid expansion of the armed forces and the industries supplying them had already absorbed most of the unemployed; in addition, a greatly increased labor force was required. The determination of basic manpower policies and of the scale of the war effort itself hinged largely on the degree to

which the labor force could be expanded to meet the desired goals.

Experience during World War II proved that under the stress and incentives of a wartime economy, the labor force was capable of great expansion. By VE-day, the armed forces had been built up to a peak strength of over 12 million, from only a few hundred thousand 5 years earlier. At the same time, civilian employment had risen fully 7 million, as a result of the tremendous expansion of the munitions industries and related war employment.

Part of the gain came from the ranks of the unemployed, who were reduced, by VE-day, to only a half million. The greater part, however, represented a net addition of 11 million men and women to the total labor force. Since the "normal" increase which would have been expected over these years on the basis of a projection of

prewar trends, was only about 3 million, this indicated an abnormal wartime influx of 8 million emergency workers.³

The greatest increases in the wartime labor supply came from those groups in the population which had proved most responsive in the past to long-run social and economic trends. About 4 million, or half, of the "extra" workers were youths of school and college age; 2½ million were adult women; and 1½ million were adult men, mostly over 55 years of age. (See chart 2 and table 2.)

TABLE 2.—Estimated deviation of labor force, from "normal,"¹ April 1945, 1946, 1947

Age and sex	Number of "extra" workers (in thousands)			Percent			
	April 1945	April 1946 ²	April 1947 ²	Net change April 1945- April 1947	April 1945	April 1946 ²	April 1947 ²
Total, both sexes....	8,130	2,680	1,620	-6,510	14.0	4.6	2.7
Males, all age groups.	3,900	1,970	1,480	-2,420	9.2	4.6	3.4
14-19 years.....	2,120	910	990	-1,130	80.9	35.7	39.8
20-24 years.....	430	60	-320	-750	8.0	1.1	-5.9
25-34 years.....	110	-70	-190	-300	1.0	-.7	-1.8
35-44 years.....	110	80	60	-50	1.2	.9	.6
45-54 years.....	260	220	160	-100	3.4	2.9	2.1
55-64 years.....	400	350	380	-20	7.8	6.7	7.2
65 years and over.....	470	420	400	-70	24.2	21.4	20.1
Females, all age groups.	4,230	710	140	-4,090	27.1	4.4	.9
14-19 years.....	1,450	690	620	-830	114.2	55.6	51.7
20-24 years.....	380	-150	-350	-730	12.6	-5.0	-11.5
25-34 years.....	210	-700	-1,030	-1,240	4.7	-15.4	-22.0
35-44 years.....	700	170	70	-630	21.2	4.9	1.9
45-54 years.....	830	380	460	-370	38.6	16.1	19.7
55-64 years.....	500	260	270	-230	45.5	22.8	22.7
65 years and over.....	160	80	100	-60	48.5	24.2	29.4

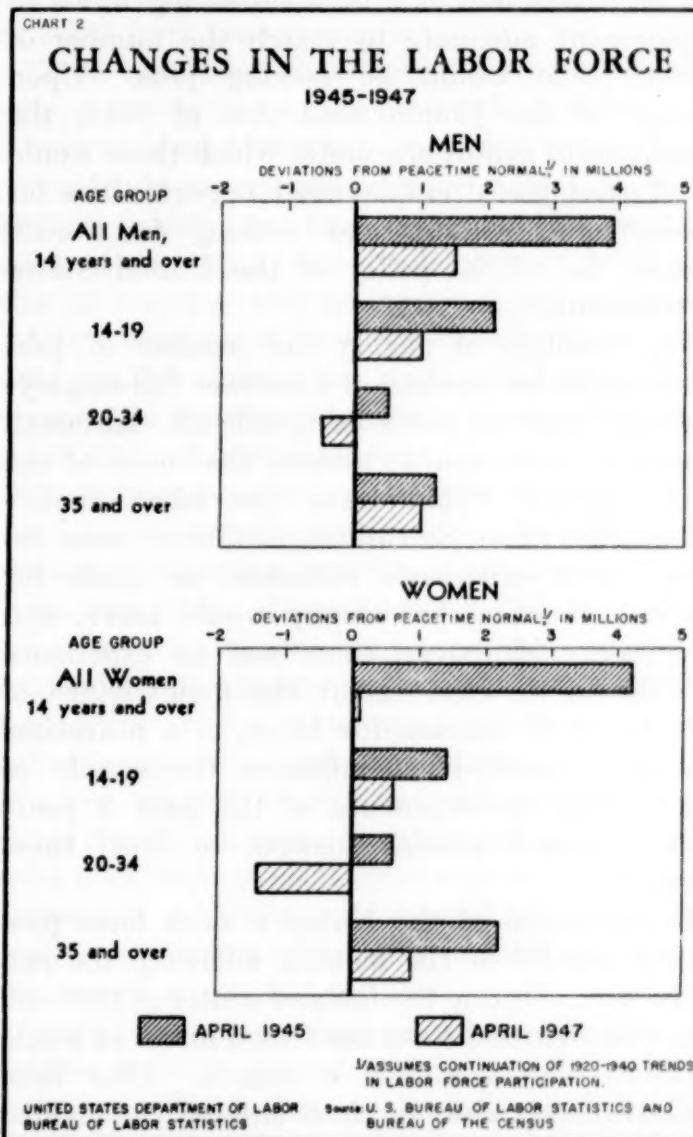
¹ Based on comparisons between estimates of actual labor force, including armed forces (adapted from Census Bureau Reports), and "normal" labor force projected from trends between 1920 and 1940 (adapted from U. S. Bureau of the Census Release P-44, No. 12).

² The estimates of actual labor force for April 1946 and 1947 have been adjusted to include allowances of 1,100,000 and 150,000, respectively, for veterans on vacation and temporarily outside the labor force. A further upward adjustment of 300,000 was made in April 1947, to allow for subnormal employment in agriculture during the Census survey week, due to poor weather conditions.

Some part of this increase resulted from strictly wartime circumstances. Many young men were drafted into the armed forces, and wives and other dependents of servicemen sought employment to supplement family allotments. A patriotic desire to aid in the war effort undoubtedly prompted many others to enter war employment, apart from economic considerations.

³ Estimates of normal labor force are based on trends in the rate of labor market participation by age and sex groups, for the period 1920 to 1940. They represent the labor force that would have been expected if the trends of peacetime years had continued after 1940, and if economic conditions similar to those of 1940 had prevailed. They serve a useful base against which to measure the wartime mobilization of the labor force as well as postwar trends.

To a large extent, however, the expansion represented a voluntary response to an abundance of jobs at good pay. As the wartime labor market became tighter, training programs were instituted which permitted easy access into relatively high-paying jobs by either new or unskilled workers. Many youths left school early to enter employment, or obtained part-time or summer jobs. As is pointed out on page 666, women workers entered a wide range of occupations, particularly in heavy industry, which, prior to the war, had been reserved almost exclusively for men. Older workers and the handicapped, many of whom had been regarded as too old or unable to work, also found a ready place in the wartime labor market.



Changes of such magnitude as those occurring during the war were bound to leave their mark on the size and composition of the labor force for years ahead. The war added greatly to the Nation's reservoir of skills and work experience

Although a good many of these skills were not readily transferable to peacetime pursuits, many youths and women who had worked for pay for the first time during the war would be likely to stay in their roles of workers rather than return to prewar routines. On the other hand, the very nature of the wartime expansion made it unlikely that more than a fraction of the abnormal influx of workers would continue in the labor market after their jobs were completed.

Postwar Developments

With the coming of peace, the changing size of the labor force began to be viewed from a new perspective. Instead of finding men for jobs, the challenge was now one of maintaining levels of employment adequate to match the number of workers who would be seeking jobs. Upon passage of the Employment Act of 1946, the promotion of conditions under which there would be afforded useful employment opportunities for those "able, willing, and seeking to work," became the official policy of the United States Government.

The problem of gaging the number of jobs which might be required in a postwar full-employment economy was particularly difficult. Although it seemed reasonable to assume that most of the extra workers would leave the labor market voluntarily when peacetime conditions were restored, past experience furnished no guide for use in estimating how many would leave, and how soon. Moreover, there was no experience to indicate to what extent the maintenance of high levels of demand for labor, in a peacetime economy, would itself influence the supply of labor. The developments of the past 2 years have provided partial answers to both these questions.

Reconversion of the Nation's work force proceeded rapidly in the months following the end of the war. During the fall and winter of 1945-46, men were released from the armed forces at a rate of more than a million a month. After brief periods of rest most of them entered the civilian labor market. By the spring of 1947, the armed forces had dropped to only 1½ million, and the total number of male World War II veterans in civilian life had risen to 13½ million, of whom over 12 million were in the labor force.

Despite the unprecedented size of the inflow,

absorption of ex-servicemen into civilian jobs proceeded smoothly, and at no time during the transition period did unemployment become a major problem. It rose from a wartime low of a half million to a reconversion high of 2.7 million in March 1946, but settled down, thereafter, fluctuating within a narrow range of from 2 million to 2½ million in the following year and a half.

The rate of joblessness remained relatively higher for ex-servicemen than for other men workers in comparable age groups. This was largely due to the inevitable lag between the date of first seeking work and the time of actually finding work, which is nearly always experienced by new entrants into the job market. Unemployment also remained above the national average in some former war production centers and in areas where individual industries were undergoing readjustments.

Labor continued in relatively short supply, nevertheless, in particular skills and for the less desirable or lower-paid jobs. For the Nation as a whole, however, a remarkably even balance was maintained between supply and demand, and the level of unemployment 2 years after VJ-day—about 3½ percent of the labor force—was close to the minimum to be expected in a free and dynamic economy.

Highly significant in maintaining this balance in the postwar labor market was the rapid exodus of most of the emergency wartime workers. From a peak level of over 8 million "extra" workers in April 1945, the excess of the labor force over the projected normal a year later had been reduced to somewhat over 2½ million. (See table 2.) Further net declines occurred in the following year, so that the labor force of 61 million in April 1947 was only about 1½ million above normal; in aggregate size the Nation's work force more closely approximated the projected peacetime level than at any time since the early months of the war.

The over-all figures tended, however, to conceal marked departures from the prewar trend of labor force participation by different groups. As shown in chart 2, the labor force still contained a total of 3½ million workers more than normal among teenage youth and adults of 35 years and over. In contrast, the number of workers in the age group 20 to 34 years was almost 2 million below the projected

peacetime level. These differences reflected the continued aftereffects of the war, and also the sustained high levels of labor demand of the post-war period as compared to prewar years such as 1940.

As during the war, the greatest additions to the postwar labor force, in comparison with normal, came from teen-age boys and girls. Although many young persons had returned to school at the end of the war, there were still 1.6 million more teen-agers in the labor force than would be expected on the basis of peacetime trends. The ready availability of jobs in the postwar labor market apparently encouraged many to remain in gainful employment, either full time or on a part-time basis. The continued presence of over a half million 17 to 19 year olds in the armed forces also contributed to the relatively high proportion of young workers in the total labor force.

Among adult women, withdrawals from the labor force were concentrated in the younger ages. Reflecting the shift from jobs to household activities, the number of women aged 20 to 34 years in the labor force dropped sharply following VJ-day, and by April 1947, there were 1.4 million fewer working women of this age group than normal. However, large numbers of the additional women aged 35 and above remained in the post-war labor market. Women in these age groups have fewer responsibilities for care of young children and have responded more readily to economic incentives such as the pressure of rising prices, available job openings, and the desire to maintain or raise the family standard of living.

Men workers, too, showed significant departures from the prewar trend. About a half million fewer young men aged 20 to 34 were in the labor force than might have been expected. This was largely due to the full-time school enrollment of over a million ex-servicemen under the encouragement of the GI Bill of Rights. War casualties had also reduced the supply of younger men workers.

The decrease in the younger group was more than balanced, however, by continued high rates of labor force participation among older men, particularly those 65 years of age and over. At the end of the war, many observers had expected wholesale retirements of older men. Actually, relatively few of these older workers withdrew; most of them preferred continuing to work as long as jobs were available. This was true, too, of

younger civilian workers who were under physical handicaps or were for other reasons on the "fringe" of employability.

Prospective Labor Force Trends

Developments of the past 7 years have revealed that the labor force, far from being inflexible, is quite sensitive to any pronounced changes in demand for workers. It has been found that there are many persons who can readily be attracted into the labor market when job openings expand, and who are likely to drop out when conditions become less favorable. After allowing for the after effects of the war, however, such workers have remained in the postwar labor force in significantly larger numbers than would have been expected from prewar trends.

These conclusions have great import for public policies and for long-term economic thinking. It is evident that, within a fairly broad range, there are no rigid manpower ceilings in the Nation's economy which need limit its production goals in times of urgency. The availability of jobs, the offer of training and promotional opportunities, and the lowering of barriers as to age, sex, and race, can by themselves bring forth substantial increases in labor supply, apart from other economic and patriotic incentives.

No simple projection of the working population based on past trends can, therefore, be a sufficient guide for projecting long-range employment and production goals. Over the years, both individual and collective decisions have been made as to the distribution of human resources between gainful employment and a wide range of other socially desirable activities, such as education, household activities, rearing of children, and enjoyment of leisure during old age. Further gains in productivity may make possible increases in these "non-economic" activities, if desired, or—alternatively—production of an ever-expanding volume of economic goods and services.

Apart from any marked changes in the level of business activity, labor force changes in the next few years will continue to be influenced by the aftermath of the war. If the demand for workers remains at its current high level, the next year or two are likely to witness a resumption of the long-term growth of the force. For some groups, the growth is likely to be at a somewhat slower pace than the projected "normal" trend. Many of

the teen-age youth who would normally have been expected to start work in the next 2 years are already in the labor force. The groups of younger women are also likely to supply less than their expected share of workers, because of the greater proportion of married women among them and the high birth rates of the past 2 years.

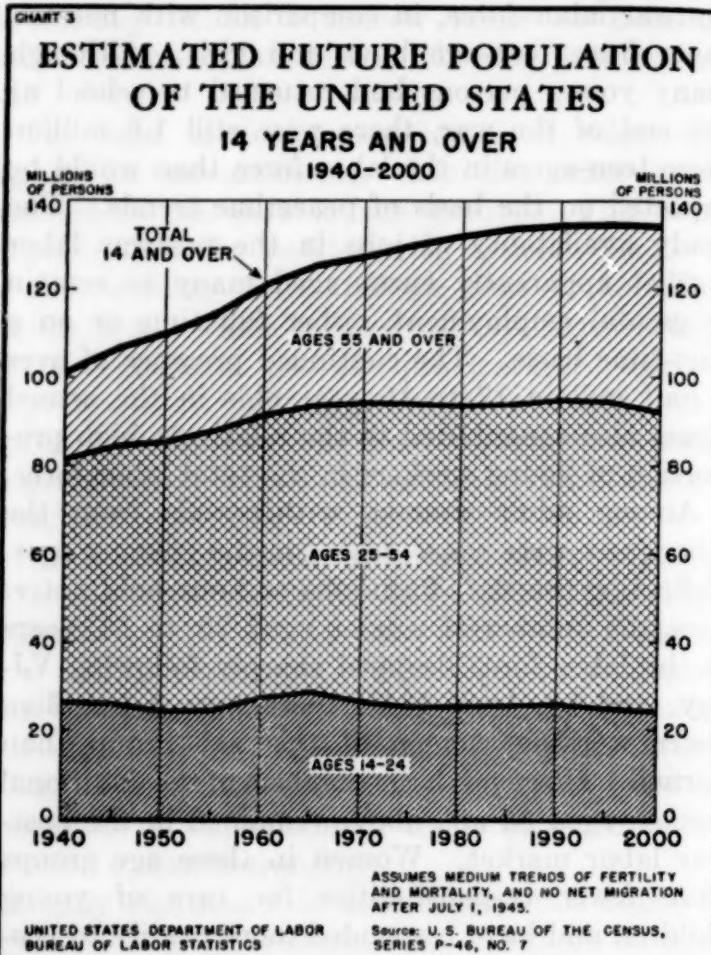
This may be more than offset, however, by the inflow of hundreds of thousands of veterans who will be completing their courses of training in schools and colleges within the next few years. Their entry into the labor market will pose a challenge to the economy which can only partially be gauged in terms of aggregate numbers.

These veterans will be much older than the average newcomer into the labor force. They will naturally seek entrance into the higher-paid, more attractive occupational fields, particularly as professional and semiprofessional workers. An expanding economy will readily find places for these new entrants, and their higher levels of training will in turn permit further gains in national productivity. On the other hand, if job openings in their fields are not available, or prove extremely limited, the Nation will be threatened with a serious social problem.

After the next few years, the changing age distribution of the population will emerge as the greatest single factor in labor force trends. Projections of the population of the United States on the assumption of medium trends in fertility and mortality, and no net migration, have been prepared by the Census Bureau, extending to the year 2000. As shown in chart 3, relatively small additions to the population 14 years of age or over, are expected until the late 1950's, because of the slump in marriages and births during the depression. In the following decade, however, the large number of babies born during the war and the early postwar years will join the working population and cause a marked acceleration in labor-force growth.⁴

⁴ The U. S. Bureau of the Census population estimates for the group aged 14 to 24 years are as follows: 1945—26.0 million; 1955—24.4 million; 1965—28.9 million. Census Release P-46, No. 7. These estimates understate the probable increase between 1955 and 1965, since they do not allow for the extremely high birth rates of 1946-47.

After the decade of the 1960's, the Nation will face the prospect of a renewed slowing-down in the rate of population and labor force increase. Before the end of the century, the population is likely to level off—perhaps even turn downward.



A more stable population in the closing decades of the century will mean also an older population. The long-term down-trend in the birth rate will reduce the relative influx of younger persons, but advances in medicine and sanitation will enable a larger proportion of the population to survive to older ages. The proportion of older persons (55 years of age and over) in the working-age population is therefore expected to rise from 19 percent in 1940 to 31 percent in the year 2000. The role of the older worker in the economy, and problems of social security, will therefore come increasingly to the forefront in the decades ahead.

Industrial Employment In War and Peace

ELSIE B. SOLTAR¹

DURING THE 9 YEARS 1939 through 1947, the United States population of working age was called upon to make a series of economic shifts and adjustments which in magnitude and rapidity had never been equaled in the country's history.

Workers in nonagricultural industries moved freely into and out of a wide range of economic activities, in response to frequent changes in the quantities and types of goods and services required. As pointed out in the preceding article, the large reserve of unemployed at the turn of the present decade, together with numbers of housewives, young persons, and older persons who would normally be outside the labor force, provided a source of labor supply that permitted rapid growth simultaneously of the military establishment and the industrial work force, through the years 1942 and 1943. All industry divisions employed more workers in 1943 than in 1939. Thereafter, the continuing drain of manpower to the armed forces was reflected in declining industrial employment and in some further shifts from less-essential to war and war-supporting activities. The number of employees in nonfarm establishments rose from 30.3 million in 1939 to slightly over 42 million in 1943. Wartime manpower shortages, followed by the liquidation of war production, reduced the number to about 38 million by the end of 1945. As reconversion proceeded, nonfarm employment again rose, passed the war peak, and in October 1947, exceeded 43 million.

Industry Trends

While all the nonagricultural industry divisions employed many more workers by 1947 than in 1939, the effect of the economic changes during the intervening years varied widely from industry to industry. The huge building program required

to provide additional plant capacity, military installations, and homes for war workers furnished the impetus to a sharp and early rise in construction employment—the high was reached in 1942 and was nearly twice the 1939 level. Since manpower and materials were more urgently needed for direct war production, Government restrictions were imposed on building activities for the remaining war period. Employment consequently declined, and through 1944 and 1945 remained below the 1939 figure; it rebounded after the war ended, but despite an acute housing shortage and an accumulation of other building needs, 1947 employment failed to reach the early war peak.

Mining employment also reached a wartime peak in 1942 and thereafter declined, but for somewhat different reasons. Because of relatively low wage rates and unpleasant working conditions, the mines were unable to attract and hold an adequate labor supply. Employment decreased through 1944 and 1945, although the need for miners remained critical. The problem was eased somewhat in the next 2 years, as veterans and displaced war workers returned to the mines. Nevertheless, mine employment in 1947 was only slightly above the 1939 level.

Next to the construction industry, the manufacturing industries were most affected by World War II. At peak, in 1943, these industries employed nearly 75 percent more workers than in 1939. Thereafter, employment declined steadily to a postwar low in early 1946. The subsequent rise brought employment in these industries to a peacetime high in 1947, 50 percent above the 1939 level. (See chart.)

Expanding government activity, particularly in arsenals and Navy yards, in construction, and in transportation and public-utility fields, resulted in large employment increases until 1943. Steady declines during the following years substantially reduced the number on government pay rolls.

The rising level of economic activity during the prewar years was reflected in increasing employment in wholesale and retail trade establishments through 1941. As the labor supply dwindled and workers shifted into more critical activities, trade employment lost ground. The wartime low reached in 1943, however, was still well above the 1939 level. Through the use of older workers and school youth (many of them on a part-time basis),

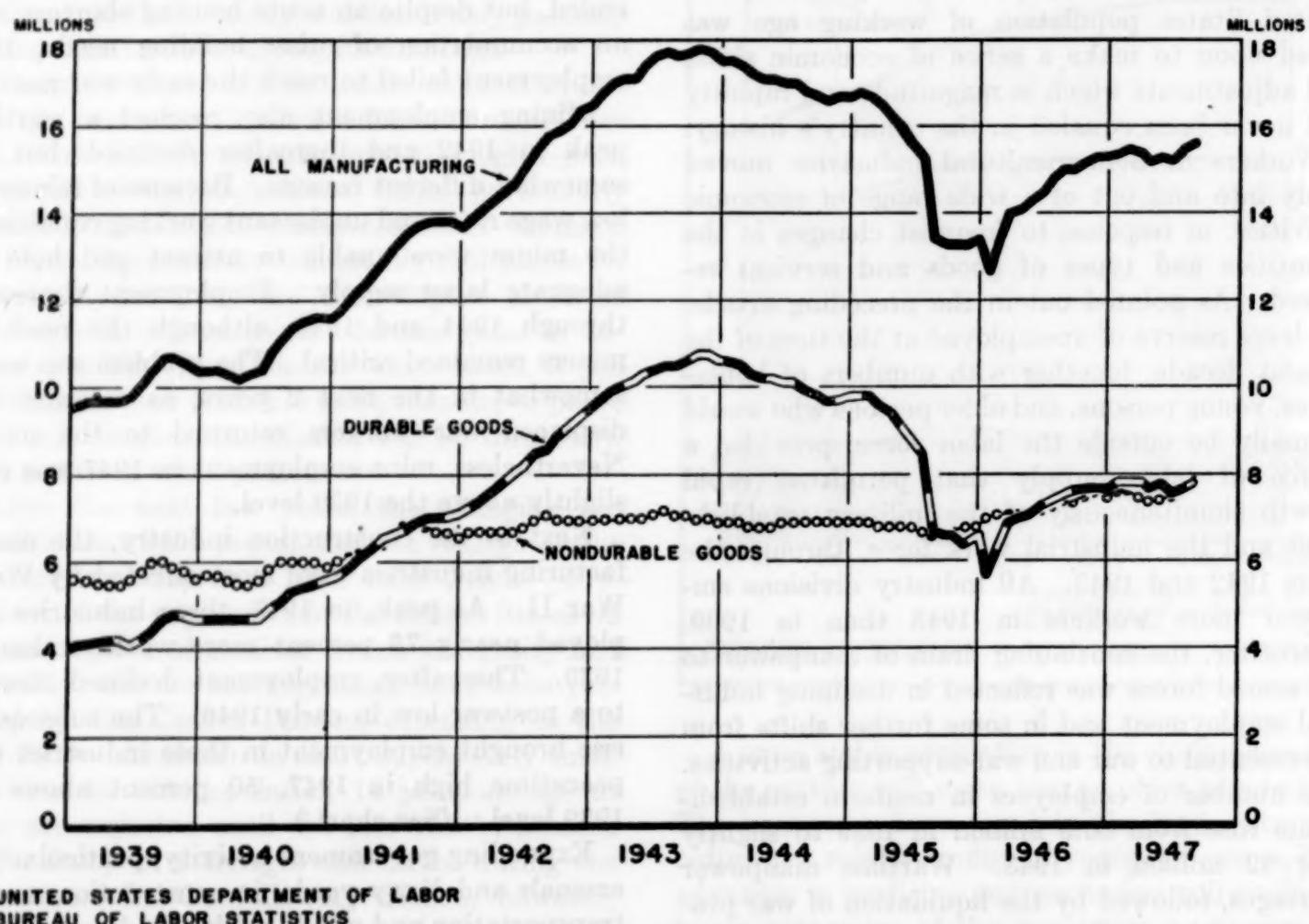
¹ Of the Bureau's Employment Statistics Division.

these industries increased their employment somewhat during the remaining war years. The record volume of postwar expenditures necessitated further substantial expansion. By 1947, trade activities provided nearly 2 million more jobs than in 1939.

Transportation and public-utility industries

increased their employment steadily through the 9-year period. In the service industries, however, expansion was halted at the height of the war effort and resumed at the end of hostilities. During 1947, these two industry divisions together employed some 2.7 million more workers than in 1939.

EMPLOYMENT IN MANUFACTURING INDUSTRIES



Long-term Trends

Indications of long-term trends and the distortions introduced by depression and war are revealed by employment shifts between 1929 and 1947, a period covering a complete business cycle. (See tables 2 and 3.) Although all industry divisions except mining employed more workers in 1947 than in 1929, rates of growth varied widely among industries. Manufacturing and government increased their shares of total nonfarm employment; mining, construction, and utilities

lost ground relatively; and trade and service accounted for about the same proportion of the total in both years. The 1947 situation was strongly influenced by the maintenance of a relatively large peacetime military establishment, by a world-wide need for American goods for relief and rehabilitation, and by heavy domestic demand for consumer durables which were unavailable during wartime. The return of more normal conditions may be reflected in a moderate decline in the relative importance of both manufacturing and government as sources of jobs. Alternative

employment opportunities may be available, however, in construction, trade, and service. Construction in late 1947 still remained short of previous peaks in activity and employment. Trade and service will probably have expansion possibilities as the current high demand for durables becomes satisfied. In 1929, 104 workers were employed in trade and service for every 100 in manufacturing; by 1939 this ratio was 112 to 100. During 1947, however, there were only 96 trade and service jobs for every 100 factory jobs.

TABLE 1.—*Indexes of employment, by industry division, selected years 1929-47*

[1929=100]

Industry division	1932	1939	1943	1947 ¹
Nonagricultural total	75	98	135	136
Manufacturing	65	96	165	147
Mining	67	78	85	82
Contract construction	65	77	105	115
Transportation and public utilities	72	75	93	104
Trade	77	105	114	136
Finance and service	87	101	114	135
Government	105	130	197	176

¹ First 10 months.

Between 1929 and the depression low of 1932, nonfarm employment dropped by one-fourth; only government increased slightly during that period. All other industry divisions shared in the decline, although in different proportions. Most severely affected were manufacturing, mining, and con-

TABLE 2.—*Number of wage and salary workers in non-agricultural establishments, by industry division, 1929-47*

[In thousands]

Year	Total	Manufacturing	Mining	Contract construction	Transportation and public utilities	Trade	Finance and service	Government
1929	31,041	10,534	1,078	1,497	3,907	6,401	4,558	3,066
1930	29,143	9,401	1,000	1,372	3,675	6,064	4,482	3,149
1931	26,383	8,021	864	1,214	3,243	5,531	4,246	3,264
1932	23,377	6,797	722	970	2,804	4,907	3,952	3,225
1933	23,466	7,258	735	809	2,659	4,999	3,839	3,167
1934	25,699	8,346	874	862	2,736	5,552	4,031	3,298
1935	26,792	8,907	888	912	2,771	5,692	4,145	3,477
1936	28,802	9,653	937	1,145	2,956	6,076	4,373	3,662
1937	30,718	10,606	1,006	1,112	3,114	6,543	4,588	3,749
1938	28,902	9,253	882	1,055	2,840	6,453	4,543	3,876
1939	30,287	10,078	845	1,150	2,912	6,705	4,610	3,987
1940	32,031	10,780	916	1,294	3,013	7,055	4,781	4,192
1941	36,164	12,974	947	1,790	3,248	7,567	5,016	4,622
1942	39,697	15,051	983	2,170	3,433	7,481	5,148	5,431
1943	42,042	17,381	917	1,567	3,619	7,322	5,187	6,049
1944	41,480	17,111	883	1,094	3,798	7,399	5,169	6,026
1945	39,977	15,302	826	1,082	3,872	7,654	5,274	5,967
1946	40,712	14,365	836	1,493	4,023	8,448	5,954	5,595
1947 ¹	42,287	15,477	882	1,716	4,047	8,598	6,179	5,388

¹ First 10 months.

struction, which shrank by about 35 percent. Service establishments showed the smallest impact, losing but 13 percent of their employees.

By 1939, nonfarm employment had risen from the depression low to over 30 million or to nearly 98 percent of the 1929 level. (See table 2.) Because of increases in the labor force and the continuing trend toward urbanization, this was no longer a full-employment level; the unemployed during 1939 numbered over 9 million. Differing rates of recovery brought government, trade, and service above their 1929 levels; below 1929 levels were manufacturing (4 percent) and mining, construction, and utilities (about 25 percent).

Under wartime conditions, expansion of manufacturing and government was accentuated, in part at the expense of other industries. Nonfarm employment in 1943 totaled 35 percent above 1929. Manufacturing industries had raised their employment 65 percent above 1929, and govern-

TABLE 3.—*Percentage distribution of employment by industry division, selected years 1929-47*

Year	Total	Manufacturing	Mining	Contract construction	Transportation, public utilities	Trade	Finance and service	Government
1929	100.0	33.9	3.5	4.8	12.6	20.6	14.7	9.9
1932	100.0	29.1	3.1	4.1	12.0	21.0	16.9	13.8
1939	100.0	33.3	2.8	3.8	9.6	22.1	15.2	13.2
1943	100.0	41.4	2.2	3.7	8.6	17.4	12.3	14.4
1947 ¹	100.0	36.6	2.1	4.1	9.6	20.3	14.6	12.7

¹ First 10 months.

ment employment was nearly twice the 1929 level. Both mining and utilities employed fewer workers, however, than in 1929. Only moderate gains were recorded by construction, trade, and service.

Peacetime full employment in 1947 required further major shifts among industries, although total nonagricultural employment returned to the 1943 level. With the close of hostilities, thousands of workers had been released from their war jobs in manufacturing and government. Many had left the labor force to return to school or household tasks. Others, joined by millions of ex-servicemen, sought new employment. By 1947, rapid expansion of trade, service, construction, and public utilities had provided sufficient job opportunities to offset the losses from manufacturing and government.

Prewar Patterns, 1939-41

During 1939, the trade and service industries, which were relatively less severely affected than other industries by the depression of the thirties, provided jobs for 37 out of every 100 workers employed in nonagricultural establishments. Despite substantial gains in employment in succeeding years, the same degree of relative importance was never regained. Second in numerical importance were the manufacturing industries, which employed one-third of all nonfarm workers in 1939. Rapid expansion of manufacturing industries substantially increased their relative standing during the war years, but postwar developments caused their share of total employment to move back toward the prewar level. Government activity of all types, which include some manufacturing, construction, and transportation and public utility services, provided employment for 13.2 percent of the nonfarm work force in 1939; privately operated transportation and utility facilities accounted for another 9.6 percent. Construction contractors employed 3.8 of the workers, and mine operators another 2.8 percent.

As the defense program got under way in 1940, all industry divisions expanded in response to increased demands. The effect was strongest in the manufacturing industries; by 1941, they had added nearly 3 million workers and increased their relative position to account for about 36 percent of all nonagricultural employment. Within the manufacturing division, heaviest demands were made upon the durable-goods industries. Between 1939 and 1941, these industries alone increased their employment by about 2 million. This accelerated rate of expansion raised the proportion of workers in the durables from about 43 to 50 percent of total manufacturing employment.

To meet the need for new plant capacity, cantonments, and housing, the construction industry expanded rapidly during the immediate prewar year. Average employment rose by over 600,000 from 1939 to 1941, outstripping, relatively, the gains made by all other industry divisions. Despite increased employment levels in 1941, all industry divisions other than manufacturing and construction accounted for smaller shares of nonfarm employment than in 1939.

War Period 1942-45

Total nonagricultural employment continued to rise through 1942 and 1943, reaching a peak of 42.6 million in December 1943—a gain of over 5 million from the beginning of 1942. About 4 million of this increase occurred in the manufacturing industries; the remainder was distributed between government and the transportation and public utilities divisions. Construction reached a peak higher than 2.5 million in the middle of 1942, and thereafter lost rapidly. Mine employment also reached a wartime high in 1942, followed by a gradual decline through the following war years.

During the peak war year 1943, manufacturing accounted for 41 percent of all nonfarm employment, compared with 33 percent in 1939. Government also increased its relative share, employing over 14 percent of all workers. The remaining industry divisions decreased in relative importance. Trade and service employment dropped from 37 percent of the total in 1939 to slightly less than 30 percent in 1943. Transportation and public utilities, construction, and mining declined to 8.6, 3.7, and 2.2 percent, respectively.

The decline in total nonfarm employment that set in at the beginning of 1944 continued until the early months of 1946. By mid-August 1945, just prior to the Japanese surrender, employment had dropped by about 2.5 million to 40 million. Nearly all of this decline was concentrated in durable-goods manufacturing, reflecting largely increased productivity in the war industries as well as some manpower shortages. Employment in the soft-goods industries remained fairly stable through most of the war period. The relative importance of the durables within the manufacturing division consequently showed considerable variation. (See table 4.) During 1941, the durable-goods industries had comprised half of the manufacturing total; by 1944 the proportion had risen to about 60 percent; it declined to 55.7 percent by August 1945.

TABLE 4.—*Percentage distribution of manufacturing employment, 1939-47*

Industry division	1939	1940	1941	1942	1943	1944	1945	1946	1947 ¹
Total manufacturing	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Durables	43.2	46.1	50.0	54.3	59.2	59.6	55.4	49.4	50.6
Nondurables	56.8	53.9	50.0	45.7	40.8	40.4	44.6	50.6	49.4

¹ First 10 months.

From the beginning of 1942 until the end of hostilities, government employment rose by 1.1 million, virtually all of the increase taking place during the first 2 years of this period. Manufacturing industries employed an additional 1.6 million persons. Transportation and public utilities added workers throughout the war years, increasing employment by half a million. All the other industry divisions employed fewer workers in August 1945 than at the time this country entered the war. When the war ended, manufacturing and government employed 53.8 percent of all nonfarm workers; trade and service accounted for another 28 percent; the share of privately operated transportation and utilities had risen to 9.7 percent; and construction and mining had declined to 2.8 and 2.1 percent, respectively.

Sharp liquidation of war production followed the Japanese surrender. Between August and October 1945, nonfarm employment dropped 1.8 million. The decline in manufacturing was even greater, with 2 million workers displaced in these 2 months. In addition, the Government released over 200,000. As workers became available, trade and service establishments hired over half a million during the same period, thereby easing the sudden shock to the economy caused by contract cancellations.

Reconversion and Full Employment

Although reconversion got under way quickly, it was several months before the durable-goods industries were ready to increase their employment. Manufacturing employment reached its postwar low in February 1946, reflecting both continuing liquidation of war commitments and widespread industrial disputes. Thereafter, it rose steadily to a postwar high of 15.5 million in March 1947. During the second and third quarters of 1947, the return of prewar seasonal patterns, particularly in the nondurable industries, became evident. Employment declines of the spring and early summer months were reversed in August, when employment returned to about the March peak. Continuing heavy demands for both producer and consumer durable goods increased the peacetime importance of the hard-goods industries. Through 1947, the durables accounted for slightly over half of all manufacturing employment—well over the 1939 proportion.

Postwar losses in government employment have been more than offset by gains in other activities. Total nonfarm employment climbed to an all-time high of about 43.5 million at the end of 1947—nearly 1 million above the war peak of 4 years earlier. Two years after VJ-day, non-agricultural employment totaled 2.5 million above the level of August 1945. With the completion of reconversion, manufacturing employment, by August 1947, had recovered the immediate post-war losses and had climbed to the pre-VJ-day figure. Except for government, all other industry divisions were well above their end-of-war levels.

Trends In Agricultural Employment

LOUIS J. DUCOFF and
MARGARET JARMAN HAGOOD¹

WARTIME AND EARLY POSTWAR CHANGES in level of agricultural employment have been neither great nor dramatic in comparison with changes in nonagricultural employment. From 1940 to 1945, farm employment, as defined in the Bureau of Agricultural Economics series, decreased 7 percent.² Since the end of the war there has been a small increase; the average for the 3 summer months in 1947 was 4 percent higher than in 1945. This relative stability in farm employment may be contrasted with the more marked changes in nonagricultural employment and with the change in the level of unemployment since 1940, as described in the preceding articles. It may also be

¹ Of the Bureau of Agricultural Economics, U. S. Department of Agriculture.

² The Census series shows a 10-percent decline over the same period. The coverage of these two official series on agricultural employment differs in several important respects. The Census figure excludes persons under 14 years of age, while BAE includes them. The Census series excludes persons who engaged in farm work during the reporting week, but who spent a greater amount of time at nonfarm work than farm work, while the BAE series includes such persons if they did 2 or more days of farm work during the reporting week. The Census includes some persons employed in agricultural services that are excluded from the BAE series, which relates only to farm work. The groups included in one series but not in the other appear not to have experienced the same trends as total farm employment during the war and early postwar years.

contrasted with the more marked changes that occurred in farm population—a decrease of 17 percent from 1940 to 1945 and an increase of 9 percent from 1945 to 1947.

Although the wartime decrease in agricultural employment was moderate and the postwar increase even smaller, two very significant features appear in the record of manpower utilization in agriculture since 1940. One is the marked wartime change in composition of the working force that made possible the maintenance of employment levels in the face of great reduction in the farm population; a reversal of this change occurred after the war ended. The second—and it is of more lasting importance to agriculture—is the great increase that took place in farm productivity during the war, which has been maintained since the war ended. Associated with the latter feature are fundamental trends in agriculture and in the use of manpower on farms.

Wartime Changes

The decline in agricultural employment between 1940 and 1945, although not marked, represented a greater rate of decrease than had been occurring. From 1910, when agricultural employment reached its peak in the United States, the rates of decrease for successive decades had been 1, 9, and 12 percent.³ Not only was the 1940-45 rate of decrease higher than that of the 1930-40 decade; but it also followed a 30-year period of decline in which the proportion of the Nation's workers engaged in agriculture had been rapidly decreasing. By 1945, only 16 percent of the civilian labor force (or only 13 percent of the total labor force) was employed in agriculture, compared with 31 percent in 1910.⁴

³ See trends in the Proportion of the Nation's Labor Force Engaged in Agriculture, U. S. Bureau of the Census, Series P-9, No. 11, March 1942.

⁴ See Labor Force, Employment, and Unemployment in the United States, 1940 to 1946, U. S. Bureau of the Census, Series P-50, No. 2, September 1947.

TABLE 1.—*Wartime and early postwar changes in agricultural employment, United States and major geographic divisions*¹

Area	[In thousands]							
	Annual average		Change, 1940-45		June-August average, 1945	June-August average, 1947	Change 1945-47	
	1940	1945	Number	Percent			Number	Percent
United States	10,585	9,844	-741	-7.0	10,902	11,351	449	4.1
New England	253	240	-13	-5.1	277	279	2	.7
Middle Atlantic	638	610	-28	-4.4	707	715	8	1.1
East North Central	1,452	1,370	-82	-5.6	1,483	1,509	26	1.8
West North Central	1,658	1,548	-110	-6.6	1,707	1,810	103	6.0
South Atlantic	2,025	1,851	-174	-8.6	2,097	2,229	132	6.3
East South Central	1,748	1,553	-195	-11.2	1,666	1,715	49	2.9
West South Central	1,832	1,665	-167	-9.1	1,838	1,895	57	3.1
Mountain	423	421	-2	-.5	468	500	32	6.8
Pacific	556	586	30	5.4	659	699	40	6.1

¹ Source: U. S. Bureau of Agricultural Economics.

The net decrease in agricultural employment between 1940 and 1945, however, was less than 1 million, on an annual average basis. The decreases took place in every major geographic division except the Pacific States, according to BAE estimates shown in table 1. Thus, the picture of moderate change in the national total is not to be explained as the net result of increases in certain regions which were offset by decreases in others.

During the early war years, the loss of manpower from farms caused great public concern, and fear was widespread that an impending general farm-labor shortage would prevent the attainment of our war food-production goals.⁵ Undoubtedly a very important cause of uneasiness

over the farm manpower situation in 1942, even though farm employment levels slightly exceeded those of 1941, was the great turn-over that had occurred in the agricultural working force. Moreover, those who had left included many experienced workers and contained a large proportion of young adult males, while among those who replaced them were large proportions of women, boys and girls, and older men. The largest reductions in the farm population from migration to cities and from inductions and enlistments into

⁵ A survey showed that of some 2,800 county agents of the Agricultural Extension Service, 71 percent thought there would be a reduction in the acreage under cultivation in 1943 due to farm-manpower losses. For an appraisal of their opinions in the light of the actual record, see Manpower in Agriculture, by Carey McWilliams and Herbert A. Klein in Year-book of American Labor, vol. 1, War Labor Policies, New York, Philosophical Library (pp. 401-413).

the armed forces occurred during 1942. After the passage of the Tydings amendment to the Selective Service Act in the early part of 1943, providing for the deferment of essential workers in agriculture, the rate of induction of farm workers was sharply reduced.

According to the Census series, the annual average number of females employed in agriculture nearly doubled between 1940 and 1943, and in the latter year women constituted between a fourth and a fifth of agricultural employment. Figures on the employment of children are available only for the summer of 1944, when a special survey showed 1,850,000 children under 14 years of age working on farms in July. If this number is added to the Census figures for persons 14 years of age and over, the total number of persons working in agriculture was 12,390,000. Of that total, 4,660,000, or 38 percent, were either women or children under 14 years of age.

These changes in age and sex composition reflected, in the main, two sorts of replacements—first, the replacement of sons who left the farms to take nonfarm employment or to enter the armed forces, whose work was taken over by other members of their families; second, the replacement made when hired workers left and unpaid family labor was substituted. Between 1940 and 1945, nearly four-fifths of the decline in the annual average hired employment was offset in numbers, by a 35-percent increase in unpaid family workers.

Another important factor in the appraisal of the farm manpower situation in the early years of World War II was the rapid rise of farm wage rates from their low prewar levels which to many farmers represented direct evidence of a shrinking labor supply.

In areas where migratory workers had formed an important source of the seasonal labor supply, a reduction in their numbers owing to transportation difficulties and to available steady nonfarm jobs also affected the composition of the farm working force. These domestic migratory farm workers were replaced chiefly by foreign laborers brought into this country under the importation program of the United States Department of Agriculture. As it was possible to route and transport such workers to areas in which growers

were willing to contract for their services,⁶ some 130,000 imported foreign workers in a year probably replaced a greater number of domestic migrants in prewar years. (The latter had migrated with little or no benefit of reliable information as to employment opportunities and needs.) The availability of farm-placement agencies for directing and routing workers undoubtedly increased the mobility and utilization of those domestic migratory workers who continued to seek work in agriculture. Prisoners of war also, to a lesser extent than foreign laborers, replaced migratory workers in wartime, although it was the policy of the War Department to place the prisoners of war, insofar as possible, in areas where there was fairly steady demand for their work throughout the year.

Various recruitment programs of the Department of Agriculture aimed at special groups who had not normally done farm work, also affected the composition of the farm working force in wartime. Many nonfarm high-school youths spent their summers on farms, and adults having non-farm jobs often worked for shorter periods during their vacations. Nevertheless, the available data indicate that farm residents formed the bulk of replacements for the labor that left farms during wartime.

Early Postwar Changes

Perhaps the most important feature of postwar changes in agricultural employment is that prewar levels have not been regained. The release from the armed forces of a number of men equal to about a sixth of the total farm labor force resulted in only a 2- to 4-percent increase in the number of persons employed in agriculture in the second summer after the end of the war. Thus, the early postwar changes have not canceled the wartime reduction in the number of persons employed in agriculture.

The following tabulation presents indexes (using the period 1910-14 as a base) of farm employment, agricultural production, and production per worker

⁶ The contracts specified minimum wages and guarantee of employment for 75 percent of the working days, provided the worker was willing and able to work.

for the years 1940 to 1946 and for previous 5-year periods, beginning with 1910.⁷

	<i>Indexes (1910-14=100) of—</i>		
	<i>Farm employment</i>	<i>Agricultural production</i> ¹	<i>Production per worker</i>
1946.....	83	159	192
1945.....	82	159	194
1944.....	83	164	198
1943.....	85	154	181
1942.....	86	149	173
1941.....	86	136	158
1940.....	88	133	151
1935-39.....	91	121	133
1930-34.....	92	117	127
1925-29.....	94	119	127
1920-24.....	94	110	117
1915-19.....	97	105	109
1910-14.....	100	100	100

¹ Volume of agricultural production for sale and for consumption in the farm home.

As in the war period, the more striking postwar changes in the agricultural working force have been in its composition. In general, such changes have reversed the direction of the shifts that took place during the war. A 2-percent increase in agricultural employment from the summer of 1945 to the summer of 1947 shown by the Census series resulted from a 13-percent increase in the number of males employed and a 26-percent decrease in the number of females. Similarly, the number of hired workers showed a net increase, and the number of unpaid family workers a net decrease. Veterans of World War II working on farms in the summer of 1947 numbered 1.1 million, compared with less than 300,000 in the summer of 1945.

Special studies by the Bureau of Agricultural Economics provided fairly detailed information on changes that took place in the composition of the hired farm working force between 1945 and 1946. The number of different persons who worked on farms for wages at some time during the year decreased by 14 percent from 1945 to 1946, but their average duration of employment at hired farm work increased by an even greater percentage, so that their aggregate labor-time input was slightly greater in 1946 than in 1945. The greater average time input resulted primarily from the change in composition of the hired force rather than from any substantial lengthening of the period of employment of particular groups of workers. Employment of females decreased

more than that of males; there was an actual increase among young adult males; veterans of World War II showed the largest gains of any group; and decreases were marked among the young boys and very old men. Very short-time seasonal workers were reduced in number by one-fourth; regular workers, with 6 months or more of hired farm employment in the year, increased by 8 percent.

Increase in Farm Productivity

The most significant feature of the wartime record of agriculture lies in the contrast between the decrease in the number of workers and the substantial increase in agricultural production as shown in the preceding tabulation. How could such rapid gains in output per worker occur when the changes in composition of the farm working force were such as to lead to the expectation that the average effectiveness of persons employed in agriculture would be lessened?

Conditions in the period before World War II provide a basis for explanation of the increase in farm productivity since 1940. Throughout the preceding decade, the depression and continuing high levels of unemployment had maintained an oversupply of labor on farms, with accompanying underemployment and wasteful use of manpower. At the same time, an extensive modernizing of farm equipment was going on. In spite of the depression, the number of tractors on farms increased from 920,000 to 1,570,000 between 1930 and 1940, with similar increases in other types of labor-saving machinery. Thus, by 1940, agricultural production per worker was already 14 percent above the 1935-39 average. In the meantime, much progress in agricultural research had taken place; the findings were ready for wide application under favorable economic conditions.

When the national defense period began, the great increase in demand both for farm products and for manpower to be used in nonagricultural industries, made possible relatively rapid adjustments, which resulted in a more efficient utilization of the farm labor force. Farmers were under strong pressure to introduce efficiencies into their operations and to increase production for patriotic reasons. Prices for farm products rose rapidly. At the same time, farm wage rates were increasing, so that there was every incentive (1) to avoid

¹ Source: U. S. Bureau of Agricultural Economics.

wasteful or inefficient use of hired labor, and (2) to meet as much of the labor requirement as possible by work on the part of members of the farm operator's family.

The 1945 Census of Agriculture recorded important changes after 1940. The 5,860,000 farms enumerated were 3.9 percent under the number in 1940; the average acreage of land contained in a farm increased by 12 percent and the average acreage of cropland harvested per farm increased by 17 percent. After adjusting for the changes in prices received by farmers, the average value of products sold per farm in 1944 was nearly a fourth higher (23 percent) than in 1939. This expansion in average output per farm despite a reduced labor supply was made possible through a number of factors.⁸ Farmers worked longer hours and were aided by family members who had not customarily done farm work. Mechanization proceeded rapidly—the number of tractors on farms by January 1945 was 2,425,000, an increase of 57 percent since 1940. Dividends were realized from soil conservation practices begun in the preceding decade. Advances continued to be made in the development and adoption of the use of higher-yielding or other improved varieties of plants and superior types of livestock, in use of lime and fertilizer, and in other improved cultural practices.

In summary, the following conclusions may be drawn from the record of employment in agriculture since 1940.

(1) At the beginning of World War II, there was a large amount of unused capacity in agriculture, certainly insofar as manpower was concerned.

(2) The reduction in farm population, farm employment, and number of farms, between 1940 and 1945, demonstrated what the statistics on the structure of agricultural production from

⁸ For estimates of the approximate importance of nonlabor factors responsible for increase in farm output between 1935-39 and 1944, see *Farm Production in War and Peace*, by Glen T. Barton and Martin R. Cooper, U. S. Bureau of Agricultural Economics, December 1945 (pp. 35-37).

the 1930 and 1940 Censuses of Agriculture revealed that the least productive half of the farms in the United States, with not far from half of the farm population and labor, contribute so little to commercial agricultural production that reduction in these farms or in the numbers of people living or working on them has no serious effect on maintaining or increasing the Nation's agricultural production.

(3) There are wide flexibilities in meeting the labor requirements of agricultural production, as diverse as the varying types of workers included in the 13.5 or 14 million individuals who do some farm work in the course of a year. Because there is among them a tremendous range of extent of participation in farm work, a shift in the distribution of the workers by time worked during the year can effect greater changes in annual labor input than a change in their numbers. (This was demonstrated by the 1945-46 hired farm working force.) One implication is that in order to understand the trends in manpower utilization in agriculture, more than the conventional current employment statistics are needed.

(4) Various factors other than fuller utilization of manpower were important during World War II in increasing agricultural production. The full capacity of these factors has by no means been reached in the Nation's agriculture.⁹ Among the more important are further mechanization, increased use of fertilizer, and better cultural practices. Especially in the South, which has about half of the Nation's farm workers, a great potential displacement of workers through mechanization exists, if there is widespread adoption of the cotton picker and the flame cultivator.¹⁰

⁹ For a summary statement on "Prospective Peacetime Changes," see *Changes in Farming in War and Peace*, by Sherman E. Johnson, Bureau of Agricultural Economics, June 1946 (pp. 43-45).

¹⁰ For estimates of the potential displacement of workers by mechanization of cotton production, see the report of the Pace Subcommittee of the House Agriculture Committee, Government Printing Office, 1947.

The Changing Occupational Structure

HAROLD GOLDSTEIN¹

THE LABOR FORCE of the United States demonstrated an unprecedented degree of occupational mobility and adaptability in the World War II and postwar periods. Rapid changes in occupational composition of the labor force during those periods were, in general, in line with long-term occupational trends. Continued growth seems likely in the clerical, semiskilled, service, semi-professional, and administrative fields; continued decline relative to the total is probable in farming, unskilled labor, and domestic service. The decline in relative importance of the professional occupations is believed to be temporary—the result of shortages of trained personnel—and the long-term upward trend in this field should be resumed. Employment in the skilled occupations, which have exhibited no clear trend in recent decades, and the sales occupations, which have gained slowly, may well continue to increase, but at a slower rate than in the other increasing groups, so that their relative importance may begin to decline.

The main direction of the trends is toward the requirement of larger numbers of well-trained workers. The greatest declines are taking place in occupations which require the least training. Furthermore, occupational outlook studies made by the Bureau of Labor Statistics lead overwhelmingly to the conclusion that in many fields workers will be required to have better educational preparation. In the professions, this means a trend toward lengthening the period of college training and the requirement of advanced degrees to an even greater extent than in the past. In administrative fields, the requirement of a basic college education is spreading to more occupations. Moreover, educators are giving considerable attention to the implications for the schools of the need for a growing proportion of the young people in

semiskilled and clerical occupations; in most of these the customary training is a relatively short period of learning on the job, and the worker, instead of being wedded to one occupation, is called upon to adapt himself frequently to new jobs.

These occupational trends also have implications for income levels, since a growing proportion of the labor force will be engaged in occupations in which earnings have customarily been higher. Both in terms of educational background and economic status, therefore, the effects of long-term occupational trends upon individual workers seem to be favorable.

Causes of War and Postwar Occupational Shifts

Industrial, technological, and social changes increase the need for workers in some occupations, reduce the demand in others, sometimes create new occupations and throw old ones into the discard, and constantly alter the character of nearly every line of work.

Following a decade of depression, the wartime rise in employment made it easier to get a job, thereby increasing occupational mobility. The pattern of occupational demand was drastically altered; needs increased in occupations characteristic of the war-expanded industries, and declined in some others. The building of new plants and installation of quantities of new and efficient machinery hastened industrial mechanization. Finally, in response to rapidly changing production programs and to mobilization and demobilization of the armed forces, great numbers of workers moved into and out of the civilian labor force and the armed forces, from industry to industry, and from one part of the country to another.

Under these conditions, a great many workers changed their occupations and learned new skills. This was facilitated by job break-down and simplification in war industries, as well as by the establishment of emergency vocational training programs.

Job break-down was more widespread and rapid than ever before in a century and a half of industrial evolution. As orders called for many identical items, mass production was introduced in industries in which it had not formerly been in use, such as shipbuilding and aircraft manufacturing. To expand the work force rapidly despite

¹ Of the Bureau's Occupational Outlook Division.

shortages of skilled workers, industrial plants so arranged their processes as to make use of workers who could be hastily trained to handle a single operation.

An unprecedented amount of training took place during the war. In order to help industry put inexperienced people to work, the Federal Government financed training programs for trade, industrial, and agricultural occupations, in which 11½ million enrollments were reported; there were in addition over 1½ million enrollments in the engineering, science, and management war training program. Industry also trained millions of workers on the job, and the armed forces gave training in such fields as aviation, radio work, automobile repair, telephone installation, and medical service occupations. Much of this emergency wartime training was limited in scope, however, and prepared the individual only for the single job at hand.

The shifts in occupational structure, as shown in the accompanying tabulation of data from the Census Bureau, are not surprising in view of the rapid war and postwar changes in economic patterns in the United States.² From April 1940 to April 1947, when total employment gained by nearly a fourth, employment in skilled, semiskilled, clerical, and administrative occupations increased in relation to the total; employment in professional and semiprofessional, sales, service (except domestic), and unskilled labor occupations gained in numbers, but declined in relative position; and employment in farm and domestic-service occupations decreased.

Although these shifts resulted largely from short-term factors, the relative gains in employment in semiskilled, clerical, and administrative fields followed a long-term upward trend. Similarly, the relative decline in employment in farm, domestic-service, and laborer occupations was in line with the previous long-term downward trend. Professional, service, and sales occupations, however, declined in relative position in the face of a long-term increase. A sharp rise in employment of skilled workers at least temporarily reversed what seemed to be a relative decline in that field during the previous 2 decades. Whether a definite turning point has been reached or whether the previous trends will reassert themselves is considered below.

The sources drawn upon are studies completed by the Bureau on trends and outlook in some 200 occupations—largely those for which relatively long periods of training are required, and in connection with which there has been the greatest interest in the long-term outlook for purposes of vocational guidance.

<i>Major occupation group</i>	<i>Percentage distribution</i>	
	<i>April 1940¹</i>	<i>April 1947</i>
Operatives and kindred workers.....	18.5	21.5
Craftsmen, foremen, and kindred workers.....	11.2	13.3
Clerical and kindred workers.....	10.4	12.4
Proprietors, managers, officials (except farm).....	8.3	10.2
Professional and semiprofessional workers.....	7.5	6.8
Service workers, except domestic.....	7.3	7.2
Sales and kindred workers.....	6.5	5.8
Farmers, farm managers, foremen and laborers.....	18.6	13.6
Laborers, except farm and mine.....	6.8	6.0
Domestic service workers.....	4.9	3.2
Total.....	100.0	100.0

¹ Refers to week ended March 30.

Professional and Semiprofessional Occupations

During the war, demand for the services of engineers, chemists, physicians and nurses, and other medical-service workers increased greatly to meet the needs of industry, the armed forces, and the population in general. Nevertheless, the experienced labor force in the professional and semiprofessional groups taken together increased on the average from 1940 to 1947 by only about 53,000 a year—nearly the same annual growth as in the previous 40-year period. Employment of professional workers increased more slowly than total employment from 1940 to 1947, and the much smaller group of semiprofessional workers grew more rapidly.

A drop in relative standing of the professional occupations was to be expected in a period when the economy shifted from depression to high-employment levels. The professions include occupations in which employment is relatively stable, such as those of teachers, who are employed by government, and physicians, who are self-employed. Just as the percent of employed workers who are professional is likely to rise in the early

² See also Recent Occupational Trends, Monthly Labor Review, August 1947 (p. 139).

stages of a depression because of the greater drop in employment in most other occupations, so should the percent employed in this relatively stable field decline as employment generally swings upward.

Another reason why the professional group did not increase more rapidly is the length of the training period required. Fortunately for the war effort, the depression had not curtailed professional training. For at least 2 decades before World War II, college attendance had been rising steadily, and in 1942 the number of graduates hit an all-time peak. The effect of Selective Service withdrawals of students was soon felt, however; by 1944, graduations had dropped by a fourth below the 1942 level, and a further decline occurred in 1945. Nevertheless, because of the great increase in enrollments in the late thirties, the total number of college graduates in the war years 1941 to 1945 was probably not more than about a tenth lower than in the previous 5-year period.

The major impact of the war upon the training of professional workers was not this moderate reduction in total numbers trained, but rather a change in occupational emphasis. Acceleration programs in medical schools turned out about 5,000 more physicians than would normally have been trained. The number of engineers graduated in the 5 years 1941 through 1945 was a fourth greater than in the previous 5-year period. More nurses and dentists were trained. In general however, gains in training in medical and technical fields were more than offset by a reduction in graduations in education, law, commerce, architecture, library science, and similar occupations which were of less immediate need. As a result, the number of graduates in engineering, medicine, dentistry, and nursing increased from 22 percent of the total in 1940 to 33 percent in 1944.

Another factor affecting recent trends in professional employment was the loss from such fields as teaching and nursing, because of higher pay or better working conditions offered by other jobs. Despite wartime gains in employment of women in many professions, the total number of women in professional occupations has failed to increase since 1940. Recent salary increases granted to teachers in many parts of the country, however, may make it possible to expand that profession to serve a growing school population.

In summary, the failure of the professions to keep up with the gain in employment scored by most occupational groups was the result of temporary factors—the greater cyclical expansion of other fields, the reduction in numbers receiving professional training, and the exodus of trained workers from some professions because of unfavorable earnings or working conditions.

In the long run, employment in professional occupations probably will continue to increase in relation to total employment, as technology advances and standards of educational, health, and welfare services continue to rise. The greatest increases in demand are expected to be in teaching, nursing, engineering, and social work. A more moderate employment increase is anticipated in such major professions as medicine, pharmacy, law, and music. Rapid growth is expected in the smaller field of semiprofessional occupations, which is rapidly emerging as a significant group. Most of the employment gain in semiprofessional fields took place after the war, and further increases are expected, particularly in the medical service occupations such as laboratory technicians and physical therapists, according to studies by the United States Women's Bureau.

By and large, the additional professional workers needed will be made available by the postwar boom in the colleges, which will result in a great outflow of trained professional workers within a few years. More than 2 million were enrolled in the fall term of 1946 and 2.3 million in 1947, as compared with a prewar peak of 1.4 million recorded in 1939. The overemphasis on technical and scientific fields persists, and if college students keep up their present pattern of vocational interests, the number of graduates in some of these fields may very well exceed the employment opportunities within a few years. In other fields, such as medicine, however, where enrollments have increased to a smaller extent, supply is not likely to rise so rapidly. A trend toward raising of educational requirements, already far advanced in professions such as chemistry and medicine, and extending to nearly all the fields, may well be accentuated when these large numbers of new professional workers come into the labor market.

Skilled Occupations

In the thirties, persons in the skilled occupations, many of whom are employed in the construction and durable-goods industries, were hit severely by the depression. Fully 900,000 of the skilled workers—or 1 out of 7—were unemployed in 1940, and another 460,000 were employed in semiskilled, unskilled, and other occupations. In contrast to the situation in the professions, training of new workers in many skilled trades had slowed down to a trickle. Moreover, immigration laws adopted in the twenties had cut off one of the major sources of the skilled-labor supply. By 1940, half of the craftsmen employed were over 41 years of age, and relatively few young men were being trained in all-round skills.

War production required great numbers of skilled workers. Employment of craftsmen, foremen, and kindred workers increased by over 2 million as employment in metalworking industries reached its 1943 peak. This rapid expansion of employment—at a time when many skilled men were being called to the armed services—is remarkable, in view of the long period required to train craftsmen. It was made possible by recruitment from among the 1,360,000 skilled workers who were unemployed or engaged in other occupations in 1940; by temporary upgrading to craft or foreman jobs of semiskilled and other workers who already had partial training or qualifying experience; and, to some slight extent, by expansion of apprentice training in the metal trades, which began at the start of the lend-lease program. As a result, many of those employed in skilled occupations during the war did not have a fully rounded background in their craft. In some crafts, such as tool and die maker and machinist, it was not possible to expand employment so rapidly, and many men in these trades worked extraordinarily long hours during wartime.

Recruitment of skilled workers for war industries was also facilitated by the movement of craftsmen from other industries. Employment of automobile mechanics dropped by about 150,000 during the war; many of them moved to factories in which their mechanical background could be utilized in skilled jobs. After the construction peak of 1942, many building craftsmen also moved into factory jobs.

In the postwar period, as construction activity

increased, employment of skilled workers surpassed the wartime peak by half a million. Apprenticeship programs received great impetus as a result of the desire of veterans for thorough training leading to a skilled trade. From about 20,000 at the end of the war, the number of apprentices shot up to more than 150,000 by the summer of 1947.³ More than half the apprentices in 1947 were in the building trades, and more than three-quarters of them were veterans.

The long-term trend in the skilled trades is difficult to determine, because these occupations are especially sensitive to large cyclical fluctuations. Allowing for the effects of the 1920 boom and the depressed conditions of 1940, the skilled trades at best only held their own from 1910 to 1940; they certainly did not gain in relation to the other occupations. Similarly, the rise in importance of the skilled group in the wartime and postwar periods seems to be in large part the result of the cyclical upswing, rather than a reversal of a long-term trend.

As rationalization of industry, in the long run, reduces the need for the artisan in production work, his place is being taken by the semiskilled worker. But as mechanical equipment becomes more widely used in industry, on farms, in the home, the need increases for workers in the rapidly growing repairmen occupations (including automobile mechanics, industrial machinery repairmen, radio and other electronic technicians, electrical repairmen, business machine servicemen, and others). Furthermore, the small nucleus of all-round skilled craftsmen used in developing new equipment should increase somewhat in size as technology advances. In machine shops and printing—two of the major fields for skilled workers in manufacturing—a moderate increase seems likely. Railroad occupations and foundry occupations may not show any significant rise over existing high levels. The model-making occupations—tool and die makers, patternmakers, sample makers in apparel plants, etc.—will in general gain in employment only slightly, since a large increase in production and plant employment can usually be achieved with only a small expansion in this type of work. Greater use of semiskilled workers in industry should increase

³ These data cover only programs registered with the Apprentice Training Service of the U. S. Department of Labor and cooperating State apprenticeship councils, which, it is estimated, at present include about half of all apprentices in the United States.

employment of foremen, leadmen, set-up men, lay-out men, inspectors, and similar workers. Finally, with a great backlog of demand, construction employment may well remain high for several years, but is not likely to increase significantly above these peak levels.

In summary: employment in the skilled trades may be expected to increase somewhat in the years ahead, but may fall behind some of the other major occupations in rate of growth and may actually show a decline as a percent of the total.

Sales Occupations

There has been a moderate growth in sales occupations in recent years, but at least some of the increase in the 1930-40 decade is believed to have represented a form of disguised unemployment.

During the war, employment of men in this field dropped by a million—about 50 percent—and by 1947 it had not yet fully regained the 1940 level. A wartime increase of half a million women was maintained in the postwar period. The exodus of men from sales work was caused in part by selective service withdrawals, but even more by sharp wartime curtailment in some of the fields in which men salesmen predominate. Production of furniture, automobiles, and other consumer durable goods was reduced or eliminated; manufacturers with Government contracts found it unnecessary to maintain large sales staffs and manufacturers of consumers' goods, instead of having to make an effort to sell, found eager buyers. Moreover, difficulties in recruiting workers in some relatively low-paid sales jobs hastened the prewar trend toward self-service stores, which employ many clerical workers such as checkers, weighers, and stock clerks, but few salesmen. Employment in sales occupations increased only half as much, after 1940, as total employment in wholesale and retail trade.

With the return of more competitive conditions, additional salespeople may be taken on by both manufacturers and stores. In the large field of insurance selling, a continued rise is likely with the growth of population. In view of the moderate growth of sales occupations in the past and the continued extension of self-service practices, it does not seem likely that the number of jobs in selling will increase as much in the future as will those in some of the more dynamic occupational

fields; the relative importance of sales occupations may remain about the same or even decline slightly over a long period. Thus, it is possible that the war years witnessed a turning point in the growth of this class of employment.

Semiskilled Occupations

The rapid growth in semiskilled occupations which accompanied the industrial revolution made this the largest occupational group before the war. The wartime increase in heavily mechanized industrial plants, much of which has been made a permanent addition to the Nation's capital equipment, increased the need for semiskilled workers, and over 4 million were added—half as many as the total employed in 1940. Great numbers of hastily trained welders, riveters, machine-tool operators, and assemblers—the largest part of whom were semiskilled—went to work in shipyards, aircraft factories, and munitions plants. The number of welders and machine-tool operators nearly tripled from 1940 to 1943.

After a sharp drop when the war ended, employment in semiskilled jobs again climbed nearly to the peak wartime level. Some workers had to learn new skills in the postwar period; more than 100,000 welders, for example, had to shift to other work. In many machine shops in which some form of mass production had been instituted during the war, a return to prewar products and methods meant a need for more fully skilled machine-tool operators and a larger number of all-round machinists. Nevertheless, in the fall of 1947, more than 1 out of every 5 workers was in the semiskilled group.

In view of long-term trends and recent developments, it seems likely that these occupations will continue to grow, both in numbers and in relative importance. Mechanization may still make further inroads in large areas of work, including farming, the movement and handling of material in industry, and construction; in all these fields there are potentialities for the hiring of additional semiskilled workers.

Other Major Occupational Fields

The emergence of clerical work as a major field of activity is perhaps even more revealing of the character of the country's civilization than is the rapid growth of the semiskilled occupations. Just

after the Civil War, 1 worker out of every 160 was a clerical worker; in 1930, the proportion had increased to 1 in 12. Employment in clerical jobs gained steadily during World War II, and this growth continued without interruption in the postwar period; in 1947, 1 employed worker in 8 was a clerical worker, as compared to 1 in 10 in 1940.¹

The introduction of business machines will affect future growth in this field, particularly in routine bookkeeping and clerical jobs, just as the dial telephone has cut down the number of jobs for telephone operators and the teletype those for telegraph operators. Moreover, much work is being done on the rationalization of office methods, perhaps induced by the growing burden of clerical costs. These developments may well slow down the rapid growth of the clerical occupations, but in view of their past gains and the growing complexity of business and government, it seems likely that they will continue to increase in importance for some time to come.

From the point of view of young women considering a vocational choice, clerical occupations are outstanding as a source of employment opportunities. More than a quarter of the working women are in clerical fields, and the number of new job openings is large because of rapid turnover.

A continuation of the downward trend in farm occupations, domestic service, and unskilled labor jobs seems to be indicated by recent developments. Domestic service lost workers steadily throughout the war and continued to lose them in the postwar period, partly because of the attraction of higher-paid jobs in other fields. Workers have

¹ A somewhat different group of occupations has to be used for the 1870-1930 comparison from that used in the discussion of trends since 1940. See Comparative Occupation Statistics for the United States, 1870-1940, by Alba M. Edwards, U. S. Department of Commerce, Bureau of the Census, 1943.

been drawn out of nonfarm laborer occupations by the better pay in other jobs and by the increase in the use of construction machinery, materials-handling and loading equipment, and conveyor systems, all of which are designed to do the principal work of unskilled laborers in many industries, such as moving materials, loading, unloading, and digging. Trends in agriculture are discussed on page 649.

Service occupations, often viewed as the great employment field of the future, gained moderately in importance in the past few decades and during wartime. After the war ended, however, employment in such occupations rose more slowly than total employment, so that by 1947 the relative position of the group was slightly lower than in 1940. Higher income levels and a rising population should result in continuance of the long-term increase in number of restaurant and hotel workers, barbers, beauty operators, and service employees in theaters and other amusement places. As additional hospitals and large commercial, public, and residential buildings are put up, more jobs will be opened for janitors, charwomen, elevator operators, and hospital attendants. It seems likely that, in the long run, this group of occupations will continue to expand moderately, but not phenomenally.

Another group of occupations for which the long-term rise in relative position has been steady but not rapid is the group comprising proprietors, managers, and officials, about half of whom are retail-store owners. The group as a whole increased during the war, despite a drop in the number of independent proprietors, and rose further in the postwar period as many small businesses were opened. This occupational field may well continue to expand moderately because of the growing complexity of economic and governmental organization.

2. Negro, Women, Youth, and Older Workers

THE SHIFTS which took place during and after World War II involved marked changes in the position of a number of specific groups in the working population which are discussed in the next four articles.

In 1940, for example, both the younger and the older worker experienced the highest rates of unemployment. Under wartime conditions, however, youth found ample job opportunities, and the older worker again took his place in a wide range of work, both on the farm and in industry. These changes have continued into the postwar period, and have focused attention on a number of emerging problems.

Whether the younger people are entering the job market with sufficient education and training, or whether there are already signs of their relative disadvantage in the competition for jobs—which will again pose a serious problem should the employment situation change—are questions that are discussed in the article Employment Problems of Out-of-School Youth. Wartime and more recent trends among the younger members of the labor force are analyzed.

As for the older worker, experience has clearly demonstrated his preference for employment to retirement. The article on Employment Problems of the Older Worker discusses the background of this problem and the necessity for steps to enable the older person to continue as a productive member of the labor force.

Among women also the employment situation is extremely sensitive to economic change. The war drew vastly increased numbers of them into the labor force and caused marked shifts in their industrial and occupational distribution. The article Women Workers and Recent Economic Change points out the more durable effects of the impact of war, and discusses the long-term trends which can be discerned in the position of the woman worker.

The vital importance of high levels of employment, income, and purchasing power to the position of minority groups, as typified by the Negro, also has been concretely demonstrated over the past few years. Advances which have been made by the Negro, and the extent to which they have been extended into the postwar period, are discussed in the article, Postwar Trends in Negro Employment.

Employment Problems of the Older Worker

EWAN CLAGUE¹

THE PLIGHT OF THE AGED first came sharply into the consciousness of the American people after the turn of the twentieth century. Rapid industrialization, accompanied by the growth of large cities, brought to light the difficulties of the man and woman too old to work. In the decade of the 1920's following World War I, the problem became increasingly acute, and the old-age pension movement developed great strength and persistence. So far, however, this was considered to be strictly a social problem—of the worker too old to work.

In the 1930's, new aspects of the problem developed. Millions became unemployed, and all age groups were amply represented. Nevertheless, there was a heavy concentration among both the younger and older workers. The public then became conscious of the economic problem—that of the worker who was able and willing to work, but who was too old to be given a job.

In this atmosphere the Nation passed the Social Security Act, which dealt with the problem of the aged in several ways: (1) Provision was made for more funds for old-age subsistence; these were funds to assist those who could not work. (2) There was old-age insurance for those workers old enough to retire from industry; by the encouragement and the speeding up of retirement it was thought that more job opportunities would open up for workers below retirement age. In other words, the Social Security Act dealt with both the social and the economic problems connected with the aged. The emphasis for the future remained on the removal of older workers from the labor market by the granting of more adequate old-age insurance benefits.

Older Worker in Wartime

Then came World War II, with its accompanying labor shortages. A drive occurred to get into

¹ Commissioner, U. S. Bureau of Labor Statistics.

the labor market everyone who could work, which caused the spectacular increase in the labor force outlined in the article on page 638. Among the groups responding to the call, none was more eager than that of the older workers—men and women 45 years of age and over, ranging up into the 70's and 80's. People who had been in retirement for years returned to work; men and women drawing old-age insurance dropped their benefits and became wage earners; men and women who reached the retirement age stayed on at work. By April 1945, the Bureau of Old-Age and Survivors Insurance of the Social Security Board² estimated that 70,000 old-age beneficiaries had dropped their benefits and returned to work. They further estimated that a total of three-quarters of a million wage earners who were entitled to benefits and could have retired had stayed on the job.

The situation of the older workers in April 1945 just before the war ended can be summarized in a few significant percentages.³

The number of men 65 years of age and over in the labor force in April 1945 was nearly 25 percent above normal. The excess over normal among men 45 to 64 years of age was not so striking; but a very high proportion of such men consider themselves in the labor market even though they are frequently or continually unemployed during depression periods.

Among the women the percentages were more spectacular. The excess for those 65 years of age and over was almost 50 percent. In the next lower age group (55 to 64 years) it was nearly as high, and even in the group aged 45 to 54 years the excess was well over a third of the normal.

Even more significant than these wartime changes, however, were those which occurred between April 1945 and April 1947.

Older Worker in Peacetime

At the end of the war, millions of workers were immediately laid off; the speedy demobilization of millions of servicemen followed. Hours of work were shortened throughout industry. There was deep public concern that the returning servicemen should obtain jobs as quickly as possible.

² Later the Social Security Administration.

³ See estimated deviation of labor force from "normal," April 1945, 1946, and 1947, table 2, p. 641.

Great social changes were also taking place. Hundreds of thousands of servicemen's wives retired from war work to establish homes and rear families. All of these factors combined to encourage the retirement from the labor market of the millions who entered it during the war.

Among the women in the labor force the results are startling in their contrast. Between April 1945 and April 1947, there was a net withdrawal of over 3 million women from the labor force. In the age groups 20 to 34 years the outgo was so great that there was a deficit (below normal) of over 1.4 million such women in the labor force.

Despite the influence of all these forces, the excess above normal of women aged 65 years and over exceeded 29 percent in April 1947 and proportions of the age groups 55 to 64 and 45 to 54 years remained high. These older women continued in the labor market.

Among the older men comparatively little change took place between April 1945 and April 1947. Those who obtained jobs under conditions of high wartime demand held on to them in the postwar prosperity period.

The conclusion is simple: Most older workers, whether they are above or below 65 years of age, want to continue working as long as they can. They will not voluntarily retire from the labor force, but will withdraw only when they are forced out.

Future of Older Worker

The problem of the older worker will rise when the first postwar recession in business occurs. A deep and prolonged depression need not be envisaged; the assumption may be made that not more than 5 million persons would be out of work at any one time and that the business setback would not last more than a year or two. Unemployment of that dimension would undoubtedly emphasize the difficulties of the older worker in industry. It would bring to the fore again the issue of adequate old-age retirement benefits and the question of the suitable retirement age. If this were the whole problem, the lessons would be simply that older workers can and do get jobs in full prosperity periods, but they are the chief sufferers in business depressions; and that special legislative consideration, therefore, should be given to them under social security.

However, the problems of the older worker in our industrial system go very much deeper than this. A long-run trend operates against the older worker—one which cannot be reversed by legislation providing for his early retirement.

Several hundred years ago the average boy began work comparatively early, perhaps at 12 to 14 years of age. By the time he was 18 he was a full-fledged journeyman, and probably became a master workman eventually. By the time he was 45 years of age (if still living), he was one of the few survivors in his age group. Those were the days of "war, famine, and pestilence." Both the birth and death rates were high. The labor force was, on the average, very young.

No doubt the older worker of that day experienced some of the disabilities and handicaps that the older worker does today. He could not work so well nor so fast as his younger competitors. But he was secure in the knowledge that his trade or occupation still remained substantially as it was when he began his apprenticeship 30 years before. Perhaps once in a decade some significant improvement or change might occur in an occupation. Scarcely once in a lifetime would there be a revolutionary change eliminating the older worker's skill and experience.

To sum up: industrial change was comparatively slow and infrequent; the labor force "turned over" about every 25 years; a skill, once acquired, was good for a lifetime; and an occupation needed to be learned only once. Under such conditions the problem of adapting the labor force to industry was not at all the current problem.

The relationship of industry and the labor force in the United States in 1947 is in great contrast to the foregoing stage. In one way or another, the age of entering the labor market has been advanced to 16, 18, or even 20 years. Child labor regulations and schooling have prolonged the period of youth. Nevertheless, the great majority of young men and women enter the labor force by the time they are 18 years of age. They learn various trades, skills, and occupations, and have long working lives, perhaps until the age of 45.

But under modern conditions, instead of being at the end of the road, they are still faced with a long future. The average man of 45 has ahead of him over 25 additional years of life and nearly 20 years of participation in the labor force. He still expects to work until he reaches age 65.

Meantime important physiological changes have taken place; perhaps he no longer has the same skill in his fingers; in most cases, he certainly does not possess the strength, the agility, nor the speed of work that he once had. Both men and women undergo basic physiological changes in the 40's which alter their work capacities considerably. Under ideal conditions, the worker would be graduated at about this time into more responsible work, perhaps into some form of supervision or direction of the training of young workers, or "paper" work of some kind which capitalizes his knowledge. If this were the normal outcome, no social or economic problem would arise.

Actually, instead of being graduated upward, a very considerable proportion of these workers in the 40's are pushed out of their jobs and their careers. To understand this fully, it is necessary to examine industrial conditions. In contrast to the economic life of several hundred years ago, the modern industrial system is one of rapid and frequent change. Few skills or occupations are exempt from inventions, new processes, or new materials. The average young person, instead of counting upon his occupation to last a lifetime, can be fairly sure that the occupation he first learns will experience marked changes by the time he is in his later working life.

The situation, in brief, is that industry changes extremely rapidly while the labor force grows older and older. For example, in the total of nearly 45 million men actually in the labor force in April 1947, over a third were 45 years of age and over. This older third of the men workers have had at least a quarter of a century of training and experience in some kind of work, yet for many of them little of this can be translated into new industries and new jobs. The man out of work at 45 years of age has to begin all over again in a second working life, and perhaps must start once more at the bottom. Simply stated, the foregoing is the basic problem of unemployment among the older workers. For this group social security and retirement is not the key issue, vitally important as social security is in modern society. The deeper and more comprehensive economic problem is: How can the Nation maintain in productive self-supporting work the many millions of men and women in the labor force from 45 to 64 years of age, with their vast reservoir of skill, experience, and willingness to work? Industry,

however, in the course of its normal development, will find it increasingly difficult to use them.

The problem is to find what can be done to help these older workers make a successful transition to a second 20 years of productive employment. Training and retraining, adult education, the maintenance of flexibility in the labor force, and all the other tools which may be developed to deal with this long-time problem are involved.

Meantime, the first business recession will cause deep concern as to the impact of unemployment on the older workers. In succeeding periods of recovery and prosperity this type of unemployment will not disappear, but will remain as an increasingly stubborn and difficult question. The growing numbers of the aged will speedily convert this into a national problem of the greatest importance. The decision will then have to be made between (1) lowering the retirement age and attempting to remove these older workers from the labor market, and (2) taking steps to assure the continued usefulness of these age groups as productive workers.

Postwar Trends in Negro Employment

SEYMOUR L. WOLFEIN¹

THE MARKED WARTIME SHIFTS in the size and composition of the working population and its occupational and industrial distribution brought corresponding changes in the position of the Negro labor force. Between April 1940 and April 1944, employment of Negroes in civilian jobs increased about 1 million and almost three-quarters of a million were entering the armed forces. A significant shift occurred from the farm to the factory as well as considerable upgrading of Negro workers, many of whom received their first opportunity to perform basic factory operations in a semiskilled or skilled capacity.²

¹ Chief of the Bureau's Occupational Outlook Division.

² A detailed analysis of wartime changes in the employment of Negroes appears in the Monthly Labor Review, issue of January 1945 (p. 1).!

Occupational and Industrial Changes

The characteristic concentration of Negroes in farming, domestic service, and nonfarm labor groups has been greatly modified since 1940. Approximately 7 out of 10 Negroes employed in 1940 were in those occupations, whereas in 1944 and 1947 the proportion was only slightly more than

5 out of 10. During World War II, substantial numbers of Negro workers shifted over to higher paying, more attractive jobs in industry and (to a lesser extent) into white collar occupations. These advances were consolidated in the immediate post-war years; and in April 1947 the broad occupational distribution of employed Negroes closely resembled the wartime distributions (tables 1 and 2).

TABLE 1.—*Occupational distribution of employed Negroes, by sex; April 1940, 1944, 1947*¹

Occupation	Total			Men			Women		
	April 1940	April 1944	April 1947	April 1940	April 1944	April 1947	April 1940	April 1944	April 1947
All employed Negroes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Farm.....	34.0	21.6	17.3	41.7	28.9	22.7	20.9	10.9	7.2
Nonfarm.....	66.0	78.4	82.7	58.3	71.1	77.3	79.1	89.1	92.8
Farm workers.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Farmers, farm managers.....	43.4	44.1	60.2	51.2	48.3	63.6	16.7	26.9	40.0
Farm laborers.....	56.6	55.9	39.8	48.8	51.5	36.4	83.3	73.1	60.0
Nonfarm workers.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Industrial workers.....	19.5	31.2	30.2	29.1	41.0	37.8	7.3	19.8	18.6
Craftsmen, foremen.....	4.2	5.6	4.9	7.6	9.6	8.0	(*)	.9	(*)
Operatives.....	15.3	25.6	25.3	21.5	31.4	29.8	7.3	18.9	18.6
Proprietors, managers, professional workers.....	5.5	5.9	6.0	5.2	5.6	6.0	5.9	6.1	6.2
Proprietors, managers, officials.....	1.6	2.4	2.8	2.3	3.2	4.0	.7	1.4	1.0
Professional, semiprofessional workers.....	3.9	3.5	3.2	2.9	2.4	2.0	5.2	4.7	5.2
Clerical and sales workers.....	2.3	3.9	4.9	2.9	4.0	4.7	1.5	3.8	5.2
Service workers.....	52.2	42.7	39.6	26.7	20.9	20.4	84.6	68.4	69.0
Domestic service.....	34.7	23.6	20.7	5.2	2.0	3.0	72.1	49.1	47.9
Other.....	17.5	19.1	18.9	21.5	18.9	17.4	12.5	19.3	21.1
Laborers.....	20.5	16.3	19.3	36.1	28.5	31.1	.7	1.9	1.0

¹ Data for April 1940 are based on U. S. Bureau of the Census, 16th Census of the United States, Population, vol. III, The Labor Force, pt. 1, U. S. Summary, table 62. All other data are from U. S. Bureau of the Census, Monthly Report on the Labor Force. Estimates for 1940 and 1944 have been adjusted

to take account of changes in the Census series since July 1945 in order to be comparable with the figures for 1947. MRLF data are for nonwhites but are not significantly different from distribution for Negroes only.

² Less than 0.05 percent.

TABLE 2.—*Industrial distribution of employed negroes, by sex; April 1940, 1944, and 1947*¹

Industry ²	Total			Men			Women		
	April 1940	April 1944	April 1947	April 1940	April 1944	April 1947	April 1940	April 1944	April 1947
Total employment.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agricultural ³	35.1	23.0	18.5	43.3	31.3	24.3	21.0	10.9	7.7
Nonagricultural.....	64.9	77.0	81.5	56.7	68.7	75.7	79.0	89.1	92.3
Nonagricultural employment.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mining.....	1.7	3.2	2.0	3.2	6.0	3.3	(*)	(*)	(*)
Construction.....	4.7	2.9	4.9	8.5	5.4	8.2	.1	(*)	(*)
Manufacturing.....	17.4	25.1	25.0	28.4	34.3	35.3	3.8	14.6	9.4
Metals, chemicals, rubber.....	5.5	13.8	9.0	9.7	18.9	13.9	.2	8.0	1.5
Food, clothing, textiles, leather.....	3.7	5.6	5.6	5.0	6.7	6.5	2.2	4.3	4.3
All other manufacturing.....	8.2	5.7	10.4	13.7	8.7	14.9	1.4	2.3	3.6
Transportation, communication, public utilities.....	6.6	8.3	7.5	11.8	14.6	12.2	.2	1.2	.5
Trade, finance.....	13.9	15.5	17.5	20.6	17.9	18.7	5.7	12.8	15.8
Domestic and personal service.....	44.8	32.4	29.5	14.6	8.7	8.8	81.8	59.1	60.6
Professional service.....	6.1	6.3	5.8	5.1	4.7	3.5	7.2	8.2	9.3
Government.....	1.9	4.6	4.9	3.0	5.7	6.2	.7	3.5	2.9
Other ⁴	2.9	1.7	2.9	4.8	2.7	3.8	.5	.6	1.5

¹ Data for April 1940 are based on U. S. Bureau of the Census, 16th Census of the United States, Population, vol. III, The Labor Force, Pt. 1, United States Summary, table 76. All other data are from U. S. Bureau of the Census, Monthly Report on the Labor Force. Estimates for 1940 and 1944 have been adjusted for comparability with 1947 data. MRLF data are for all nonwhites, but are not significantly different from distribution for Negroes only.

² Industrial categories in this table differ from occupational categories in table 1, even though titles of categories are similar. For example, there are

more persons with domestic and personal services occupations (table 1) than there are persons employed in domestic and personal service industries, because larger numbers with personal service occupations are working in other industries, e. g., waiters and waitresses are classified in trade.

³ Includes forestry and fishing.

⁴ Less than 0.05 percent.

⁵ Includes business repair services, amusement, recreation.

In 1940, agriculture was the largest single employer of Negro labor, accounting for more than a third of their total employment. The wartime movement out of agriculture to meet expanding industrial needs brought the proportion of workers on farms down to 1 in 5, and in April 1947 the ratio was still lower.

At the same time, the movement of Negro men and women to factories, primarily as semiskilled operatives, was even more pronounced than that of white persons. Thus, Negroes accounted for about 10 percent of the total number of operatives in 1944, as compared with 6 percent in 1940.

Most of the wartime gains in factory employment of Negroes occurred in the munitions industries (metals, chemicals, and rubber groups) which experienced the largest cut-backs after the war. Yet the proportion of Negroes employed in industrial jobs (craftsmen and operatives) was about the same in 1947 as during the war. As among whites, Negroes scored sharp gains in the nonmunitions manufacturing industries over this period. Employment of Negroes as skilled craftsmen and foremen, however, appears to have declined somewhat since the war's end, in contrast to a significant increase in the proportion of craftsmen and foremen among whites.

Another striking change which occurred after 1940 is the drop in the employment of Negroes as domestics. Before World War II, over 70 percent of Negro women employed elsewhere than on farms were engaged as domestics. This proportion dropped sharply to less than 50 percent in 1944, and remained at that level in 1947. At the same time, there was a sizable increase in the proportion of Negro women employed in other service establishments, e. g., as beauticians, cooks, and waitresses.

Position of Negro Worker

It is clear from the foregoing that Negro workers made a number of significant advances during the war, many of which continued into the postwar period. Nevertheless, a considerable proportion of the Negro labor force in April 1947 was still engaged in unskilled occupational and service activities. (See table 3.) And even in 1946 and 1947—years of high-level economic activity—Negroes experienced a consistently higher rate of unemployment than white workers.

Thus, the Negro still accounted for a relatively important share of the unskilled laboring jobs. Both during and after the war, in fact, they made up a larger proportion of the nonfarm laborer group than they did before the war—negro males constituting 28 percent in 1944 and 1947 compared with 12 percent in 1940.

TABLE 3.—*Proportion of Negro to total employment in each major occupational group, by sex; April 1940, 1944, and 1947*¹

Occupation	Percent of total employment					
	Negro men			Negro women		
	April 1940	April 1944	April 1947	April 1940	April 1944	April 1947
Employed Negroes	8.6	9.8	9.5	13.8	12.9	13.2
Professional, semiprofessional workers	2.8	3.3	2.6	4.5	5.7	6.5
Proprietors, managers, officials	1.1	2.1	2.4	2.6	4.8	2.6
Clerical and sales workers	1.3	2.8	2.9	.7	1.4	1.8
Craftsmen, foremen	2.6	3.6	3.3	2.2	5.2	(1)
Operatives	5.9	10.1	10.2	4.7	8.3	10.5
Domestic service workers	60.2	75.2	64.3	46.6	60.9	55.0
Other service workers	16.5	21.9	22.7	12.7	23.9	23.2
Farmers, farm managers	12.4	11.0	11.5	30.4	23.8	23.1
Farm laborers	21.0	21.1	16.4	62.0	21.4	13.8
Laborers (excluding farm)	21.0	27.6	27.9	13.2	35.6	25.0

¹ See footnote 1, table 1.

² Less than 0.1 percent.

Similarly, employment of Negroes as proprietors, managers, and professional workers increased after 1940, but in 1947 still accounted for less than 3 percent of total employment in these occupations. Although advances occurred in the years after 1940, particularly among proprietors and managers the size of the group remained extremely small.

Again, approximately 3½ times as many Negroes were employed in clerical and sales work in 1947 as in 1940, but here, too, the actual numbers involved were small. The group in 1947 accounted for only 5 percent of nonfarm employment of Negroes.

In summary, reconversion of industry to peacetime activities brought no major downgrading in the occupational composition of the Negro workers. This is especially significant in view of the concentration of wartime employment advances of Negroes in those occupations, industries, and areas in which the postwar readjustment was most severe. Essentially, the maintenance of high labor demand during the transition period enabled these workers to hold on to many of their wartime gains. Both the war and postwar experience emphasize the importance of full employment to the position of the Negro in the labor force.

Women Workers and Recent Economic Change

MARY ELIZABETH PIDGEON¹

THE GREAT ADJUSTMENTS women workers made to the demands of wartime production, their rapid occupational shifting, and the sharp variation in several respects from the preceding norm, seemed at the time almost comparable to the vast changes in the era when machinery for manufacturing was invented and introduced. The postwar readjustment, though tending in the direction of prewar patterns, gives some evidence of acceleration in trends already noticeable before World War II, and, in one or two respects, of deviation from former trends.

Wartime Changes

The most obvious development in the war period, so far as women were concerned, was the great increase in both their numbers and proportion in the civilian labor force. These numbers advanced, according to revised Census figures, from some 14 or 15 million before the war (March-July 1940) to some 19 or 20 million toward the close of the war (March-July 1945). At the same time, with the rapid withdrawal of men into the armed services, the proportion of women in the civilian labor force rose from a prewar figure of about 25 percent to over 36 percent.

Industrial and Occupational Shifts: No less important than the increase in numbers of women in the civilian labor force during the war period was the marked shifting in their industrial and occupational groupings. Outstanding in this respect was the continual drawing of more and more women into manufacturing industries.

Aside from the characteristic manufacturing occupations (particularly operatives), clerical and kindred work showed the greatest advance in

number of women—not far from double the pre-war total. The one occupational group that lost most heavily in number of women was domestic service, which had declined by almost a fifth by 1944.²

Individual women were reported during the war in jobs carrying high-grade administrative responsibility in industry or government, or in unusual professional and semiprofessional work such as radio engineering or microphotography. During wartime, the Congress conferred military rank on women doctors in the military services. In the more established lines of semiprofessional work, such as that of laboratory technician, routine chemical analyst, or engineering draftsman, women were much more numerous than in the upper administrative and professional jobs.

The most phenomenal entries of women into production work in manufacturing industries occurred in the durable goods group, in which few were employed before (see table 1 and chart). Here their numbers increased by well over 500 percent (from late 1939) to the war peak in numbers (November 1943), and their proportions in manufacturing rose from 8.6 percent to a wartime record of nearly 25 percent (late 1944).

TABLE 1.—*Estimates of women production workers in manufacturing industries, by major branch, 1939 and 1943-47¹*

Year and month	All manufacturing		Durable goods		Nondurable goods	
	Number (thousands)	Percent of total	Number (thousands)	Percent of total	Number (thousands)	Percent of total
1939: Oct.....	2,268	25.6	340	8.6	1,928	39.5
1943: Apr.....	4,302	29.9	1,735	20.2	2,567	44.3
	4,579	31.0	1,967	22.2	2,612	44.3
	4,763	32.1	2,126	23.6	2,637	45.0
	4,800	32.2	2,176	24.0	2,624	45.0
1944: Apr.....	4,479	32.0	2,038	23.8	2,441	44.7
	4,480	32.6	2,039	24.6	2,441	44.7
	4,446	33.1	1,976	24.8	2,470	45.3
1945: Apr.....	4,404	32.5	1,919	24.0	2,485	44.9
	4,065	31.9	1,641	22.5	2,424	44.4
	3,163	29.7	835	15.8	2,328	43.4
1946: Apr.....	3,087	27.2	757	13.5	2,330	40.7
	3,090	26.3	767	12.8	2,323	40.2
	3,262	26.6	829	13.2	2,433	40.7
1947: Apr.....	3,209	25.6	824	12.6	2,385	39.8

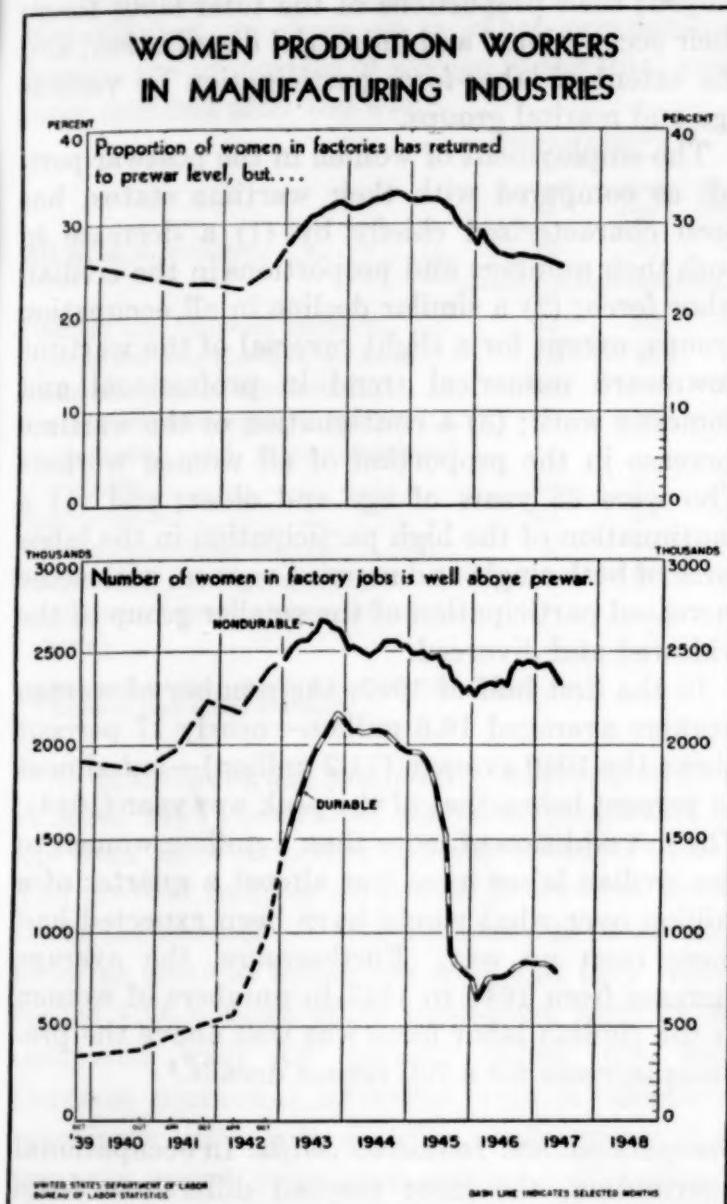
¹ Source: U. S. Bureau of Labor Statistics.

The greatest increase in women's factory employment was in transportation equipment (ex-

² See Changes in Women's Employment During the War, U. S. Women's Bureau Special Bulletin No. 20, Washington, 1944 (pp. 5, 9, 11, 13), which refers to the periods 1940 and 1944.

¹ Chief of the Economic Studies Section, Women's Bureau, U. S. Department of Labor.

clusive of automobiles), their numbers rising from less than 2,000 in October 1939 to over half a million by July 1943. Women in these industries operated drill presses, milling machines, small turret lathes, and grinders, and performed other operations formerly unusual for them, such as



riveting and welding. However, the number of women increased by about a quarter of a million or more in each of the following industries—iron and steel, machinery, and electrical machinery. In durable goods, electrical machinery had employed the largest number of women production workers before the war. (See table 2.)³

³ Data on the employment of women in manufacturing are from the U. S. Bureau of Labor Statistics. Detailed figures covering the period from October 1939 to May 1947 appear in a processed report of the U. S. Bureau of Labor Statistics on Women in Factories.

As was to be expected, women also assumed increasing importance in the manufacture of nondurable goods (from 40 percent in October 1939 to 45 percent 5 years later). They have long constituted an important segment of the labor force in these industries, such as the making of apparel, textiles, shoes, food products, and tobacco.

TABLE 2.—Estimated number of women production workers in selected manufacturing industries, 1939 and 1943-47¹

Year and month	Estimated numbers (thousands) of women production workers in—					
	Iron and steel and products	Electrical machinery	Machinery (except electrical)	Transportation equipment (except auto)	Automobiles	Nonferrous metals and products
1939: October.....	68.8	100.3	28.4	1.8	20.5	34.9
1943: April.....	299.9	327.4	227.3	445.8	121.3	88.3
July.....	339.9	350.0	252.4	520.6	162.0	97.6
October.....	367.2	370.6	270.3	557.9	199.4	105.8
November.....	380.6	378.8	274.1	574.1	203.3	107.6
1944: April.....	356.8	375.6	254.4	351.1	182.8	100.5
July.....	373.6	370.0	251.3	515.8	180.7	103.6
October.....	372.9	357.4	242.7	487.2	167.1	106.3
1945: April.....	378.7	347.2	239.6	435.5	158.1	112.3
July.....	318.4	320.3	213.5	325.8	118.6	99.0
October.....	159.9	193.7	119.4	60.1	49.6	60.4
1946: April.....	139.5	181.6	102.2	31.2	61.4	67.6
July.....	137.3	200.4	101.3	28.1	61.6	60.4
October.....	141.0	226.4	109.7	29.7	68.9	74.6
1947: April.....	142.6	216.6	112.5	28.1	76.7	72.5

¹ Source: U. S. Bureau of Labor Statistics.

Age and Marital Status: New entrants to the war labor force (exclusive of armed forces) included women of all ages. However, of the 5 million women and girls at work in the spring of 1945 who had not been in the labor force in the spring of 1940, 3 million were 35 years of age or over and more than half of these were 45 or older. This is not surprising; in 1940 almost three-fifths of the supply of women aged 14 and over who were outside the labor force (and hence might be newly available for wartime employment) were 35 and over, and more than two-thirds of these were 45 or older—ages at which family cares are likely to be less pressing than earlier.

The proportion of all women aged 35 to 44 years who were in the labor force increased from 29 percent in the spring of 1940 to 41 percent during the war (see table 3). In 1945, no other age group had so large a participation, except those aged 20 to 34, of whom normally large

proportions are workers. The increase in participation was much greater among women 45 to 64 than among those 20 to 34.⁴

TABLE 3.—*Women in the labor force, prewar, war, and postwar periods, by age*¹

Age group	In labor force—					
	Percent of all women in specified age group			Percentage distribution of women		
	April 1940 ²	April 1945	April 1947	April 1940 ³	April 1945	April 1947
All ages (14 years and over)	27	37	30	100	100	100
14-19 years	20	40	28	11	14	11
20-24 years	48	56	44	20	17	17
25-34 years	35	41	31	28	23	22
35-44 years	29	41	36	19	20	22
45-54 years	24	37	33	13	15	16
55-64 years	18	27	23	7	8	9
65 years and over	7	9	8	2	3	3

¹ Based on data from the U. S. Bureau of the Census.

² Refers to week ended March 30.

A marked acceleration occurred in the marriage rate, at the same time strong pressure was brought for the entry of additional women into the labor force. The 1944 female population included nearly 2½ million additional married women, but 830,000 fewer single women, than in 1940. Before the war (in 1940), 46 percent of the single women already were at work; and together with the widowed and divorced they made up about two-thirds of the feminine labor force.

Much of the new demand for women war workers had to be supplied from the increasing ranks of the married women. In the spring of 1940, only 15 percent of all married women were in the labor force, although at all times the married women greatly outnumbered the single women of working age in the population. During the war, nearly 3 million additional married women and 1 million additional single women took jobs, and for the first time in history the number of married women exceeded that of single women in the labor force. In 1944, of all the single women (aged 14 years and over) in the country, 55 percent were in the labor force, and of the married women, 23 percent. (See table 4.)

⁴ For further detail as to age and marital status in 1940 and 1945, see analysis made from Census data in Employment of Women in the Early Postwar Period • • • U. S. Women's Bureau Bulletin 211, Washington, 1946 (pp. 7-11).

Postwar Changes

Although women's postwar employment moved definitely in the general direction of the prewar pattern, revolutionary wartime changes resulted in notable variations from the prewar period in the following respects: Numbers of women employed; their proportions of the total labor force; their occupational and industrial distribution; and the extent of labor-force participation by various age and marital groups.

The employment of women in the postwar period, as compared with their wartime status, has been characterized chiefly by (1) a decrease in both their numbers and proportions in the civilian labor force; (2) a similar decline in all occupation groups, except for a slight reversal of the wartime downward numerical trend in professional and domestic work; (3) a continuation of the wartime increase in the proportion of all women workers who were 35 years of age and older; and (4) a continuation of the high participation in the labor force of both single and married women, with some increased participation of the smaller group of the widowed and divorced.

In the first half of 1947, the number of women workers averaged 16.6 million—nearly 17 percent above the 1940 average (14.2 million)—but almost 14 percent below that of the peak war year (1944). The net addition of more than 2 million women to the civilian labor force was almost a quarter of a million over what would have been expected had there been no war. Furthermore, the average increase from 1940 to 1947 in numbers of women in the civilian labor force was well above the previous increase for a full census decade.⁵

Occupational and Industrial Shifts: In occupational distribution, the most marked differences from April 1940 to April 1947 are a definite increase in the proportion of all women workers in clerical and operative occupations, a decline in the proportion in professional work, and an especially large decline in the proportion in domestic service.

Women also constitute an appreciably larger

⁵ The average increase per decade from 1900 to 1940 was 1,975,000; from 1940 to 1947 the average increase in months for which comparable figures are reported to date (March through July) was 2,678,000.

proportion than formerly of clerical workers and operatives, and a smaller proportion of the professional workers, as the following summary of the occupational status of women shows. Although the numbers of women in the labor force declined in the period after the war, their totals in professional and domestic work increased. Nevertheless, in these as in other occupational groups, the proportion of women in the total work force declined after the war.⁶

	Women as percent of all workers ¹ in—		
	April 1940 ²	April 1945	April 1947
All women workers-----	26	36	28
Clerical and kindred workers-----	53	70	59
Operatives and kindred workers-----	26	38	28
Domestic service workers-----	94	94	92
Service workers (except domestic)-----	40	48	44
Professional and semiprofessional workers-----	45	46	40
Sales workers-----	28	54	40
Farmers and farm workers-----	8	22	12
Proprietors, managers, officials-----	12	17	14
Craftsmen, foremen, laborers(except farm)-----	3	5	2

¹ Based on data from the U. S. Bureau of the Census.

² Refers to week ended March 30.

As manufacturing production workers, women in April 1947 constituted the same proportion of the work force as before the war (October 1939). The postwar number of women production workers in the durable goods industries was more than twice as great as before the war; and they represented 12.6 percent of all production workers, as compared with 8.6 percent before the war. Greatest numerical advances were in electrical machinery (the only durable goods group that formerly was a very large employer of women), other machinery, and iron and steel. The increases in the proportions women constituted of the work force in April 1947 were greatest in transportation equipment (excluding automobiles), and electrical and other machinery.

* For a detailed analysis of occupational changes, see *Monthly Labor Review*, August 1947 (pp. 139-147).

	Women as percent of all production workers ¹	
	October 1939	April 1947
All manufacturing-----	25.6	² 25.6
Nondurable goods-----	39.5	39.8
Durable goods-----	8.6	12.6
Iron and steel and their products-----	6.2	9.1
Electrical machinery-----	33.9	38.2
Machinery (except electrical)-----	5.2	9.4
Transportation equipment (except automobiles)-----	1.0	5.9
Automobile-----	6.6	9.5
Nonferrous metals and their products-----	13.7	17.1

¹ Source: U. S. Bureau of Labor Statistics.

² The proportion of women in all manufacturing industries remained the same in 1947 as in 1939, since it is influenced by the preponderant number of women in nondurable goods industries.

Age and Marital Status: In the spring of 1947 half of the women workers were 35 years of age or older. The proportion of women in this age grouping increased during the postwar period, as well as during wartime, whereas those in the 20-to 34-year groups were in declining proportion both during and after the war.

	Percent distribution of women in the labor force ¹		
	April 1940 ²	April 1945	April 1947
All ages-----	100	100	100
14-19 years-----	11	14	11
20-34 years-----	48	40	39
35 and over-----	41	46	50

¹ Based on data from the U. S. Bureau of the Census.

² Refers to week ended March 30.

To a small extent, these changes were caused by a considerable increase in the proportion of women in the population aged 45 years and over, coupled with some decline in the proportion 14 to 19 years of age. Even more significant is the marked increase in the extent to which women entered and remained in the labor force in all the age groups from 35 to 64 years, coupled with a falling off in the proportions who worked outside their homes among those aged 20 to 34 years, often likely to be ages of major household responsibility.

An increase occurred in the labor-force participation of women in all marital-status groups from 1940 (spring) to the postwar period, as shown in table 4. The greatest advance was in the pro-

portion of single women who were in the postwar labor force, and was followed closely by the increase in the proportion of married women therein. Since the population, however, contains so many more married than single women, the smaller proportion of those recently in the labor force exceeded the single workers in number. Married women, though considerably less than half the woman labor force, for the first time in a peacetime period outnumbered single women in the entire labor force.

TABLE 4.—*Women in the labor force, prewar, war, and post-war periods, by marital status¹*

	Percent distribution (spring)			Percent of all women in specified group who were in the labor force (spring)—		
	1940	1944	1946	1940	1944	1946
Women workers 14 and over	100	100	100			
Single	49	43	40	46	55	56
Married	36	44	44	15	23	23
Widowed and divorced	15	13	16	30	33	35

¹ Based on data from the U. S. Bureau of the Census.

Future of Women Workers

The war has widened understanding on the part of the public of the varieties of work women do successfully and the importance to industry of the kinds of work performed best by women. It seems probable that there will be a continuation of the wartime tendency to consider women in their employment relationships for their individual capabilities in a productive society, rather than to look at their employment from the more personal viewpoint as to their particular age, sex, or marital status.

A situation already existing, and likely to influence the character of the labor force in several respects, is the completion by many men formerly in the armed services of the education or training being offered to them through Government support. The increase which this will bring in the number of men seeking jobs need not depress the general level of woman employment since a primary objective of the economic thinking of today is to devise methods of continuing employment at a full level; and there is strong belief that such planning is possible of achievement.

The continued organization of the economy on a full employment basis, if effectively achieved,

will assure employment for the increasing number of women who are a normal part of the labor force, and also will assure the women normally not in the labor force the opportunity to remain in their household pursuits. The depression following 1929 convincingly demonstrated that a depression period inevitably draws into jobs additional women who otherwise would not enter the labor force, in order to bolster up waning family resources. A period of extreme inflation also may have a similar effect.

Should there be a decline from the present full employment level, the experiences of women in the labor market indicate that, compared with men, women are likely to suffer unemployment to a disproportionate extent and to find difficulty in regaining jobs, particularly those characterized by better pay and better working conditions.

Occupational and Industrial Trends: So far as the occupational position of women is concerned, it seems probable that the war-accelerated variations from the prewar period, in the broad occupational distribution of working women, will continue (at least to some extent): namely, the increases in the spring of 1947 over 1940 in the proportions of those who were in clerical and operative occupations; and the decided decrease in the proportions who were in domestic service. Professional occupations may not continue numerically below 1940; indications of this are the increase since the war in the numbers of women in such work, which includes some movement back to teaching; and the extent to which women are continuing to enroll in professional and technical schools and courses. Women's employment formerly was characterized by considerable concentration in certain occupations, and it seems likely that this will continue to be true.

In manufacturing, it will be of interest to note whether the proportions women constituted of workers in the durable goods industries in spring 1947 continue in future months to be definitely higher than before the war. Some of this increase may hold, since it is known that changes were made in job content to enable women to do some of this work; and hence they may remain in it to a greater extent than formerly. Data for 1947 (through May) indicate that women's employment in this group was declining somewhat from month to month, and men's employment was increasing;

this situation may be likely to continue as more men enter or return to the labor force.

In domestic service, the number of women had decreased markedly during the war, and in this field jobs still are going begging. Reports coming from various places and made at various times show women reluctant to return to household work, and also to other services, and to the more unattractive and low-paid clerical and manufacturing jobs as well.

In the more responsible jobs toward the top there tends to be considerable competition among applicants, and women are likely to be at a disadvantage, partly because of traditional attitudes as to the types of work women can do, and also because the specialized training or experience required is likely to be considerable and sometimes has not been widely available to women. As more men return to the labor force (some of them with valuable technical experience), these better jobs may be less frequently available to women.

However, there are numerous fields of rewarding employment in which shortages currently exist, and in which women constitute large proportions of the work force and are likely to continue in demand. These include occupations such as stenographers and typists, librarians, teachers, textile operatives, social workers, and dietitians.

Age and Marital Status:—The increase over 1940 in the proportions of women workers who are 35 years of age or older is likely to continue during at least the decade ahead. The sharp acceleration in the birth rate during early wartime and especially during the postwar period, will bring an increased group of 20- to 24-year olds into the labor force, beginning perhaps as early as 1960, by which time women who are 35 or older in 1945 will be 50 or more.

The increase in the proportions of married women who work is a long-time trend influenced by economic and social forces likely to continue. Often the woman worker must carry the double load of homemaking, as well as paid employment, through a good part of her working life. This points to the outstanding need of provision both (1) for increased financial resources for the basic family life, and (2) for availability of expert aid in the day-to-day physical care of the family, so that the wife's decision to work or to remain at

home may not be forced by economic pressure alone.

The entire general economic climate vastly influences the lives and work of women. A wise and effective planning for the use of women's skills forms a close-knit part of a healthy state of the general economy.

Employment Problems of Out-Of-School Youth

ELIZABETH S. JOHNSON¹

MANY BOYS AND GIRLS are leaving school without adequate preparation for meeting the demands of modern industry. They enter a labor market in which their opportunity for desirable employment is far less than that indicated by the general availability of jobs. Too often the result is either a poor job or no job at all. This means disappointment, frustration, and curtailment of schooling for many young people without even the compensation of satisfaction on the job and adequate financial return from employment.

The waste of youthful energy and opportunity, created by the gap between the inadequate preparation of young people and available opportunities for desirable jobs, calls for National, State, and community recognition. The problem must not be obscured by present high levels of general employment. To prevent this waste, improved educational facilities and teaching, to hold the interest of the nonbookish students and the less gifted ones, are vital. Student-aid resources for young people are essential to enable them to take advantage of what the schools and the community offer. Legal protection against bad working conditions and employment at too young an age must be extended. Special attention to the provision of the best possible counseling and placement services for boys and girls at a crucial time in

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their lives will pay large dividends to them in personal satisfaction and vocational success.

Extent of Youth Employment

Wartime labor shortages brought into the labor market thousands of children and young people who would normally have stayed in school; and also gave employment to thousands of young people who had left school and were unemployed. As pointed out on page 641, there were, in April 1945, upwards of 2 million more boys and 1½ million more girls 14 through 19 years of age in the labor force² than might be normally expected in peacetime. Although this situation changed markedly within 2 years, labor-force participation by this age group was still relatively high compared to the thirties; the excess over "normal" in April 1947, amounted to a million for boys and considerably more than half a million for girls.

No official count has been made of children under the age of 14 years who work. They are not included in the Census "labor force"; but other sources indicate that their number is large both in agriculture and in other kinds of work—not only in summer employment, but also in part-time and even to some extent in full-time jobs during the school term.

The accompanying Census estimates of the number of young people 14 through 19 years of age in the labor market, indicate whether or not they are also attending school.³ These are for October 1946—the only recent date for which the school attendance information is available:

	<i>Out of school and in labor market</i>	<i>In school and working</i>	<i>In school and not working</i>
Aged 14 and 15.....	¾ million	½ million	3½ million
Aged 16 and 17.....	1 million	½ million	2½ million
Aged 18 and 19.....	2 million	½ million	¾ million

² Based on unpublished estimates of U. S. Bureau of the Census. These figures exclude persons in the armed forces and those who for other reasons are neither in school nor in the labor market.

Of the workers under the age of 20 years, those 14 through 17 are given special consideration in this discussion of youth employment. By omitting those aged 18 and 19 years, most of the boys under 20 years of age in the armed forces are excluded, thus limiting the coverage to civilian employment. The 14- through 17-year-old group also is of particular interest in the light of the growing public conviction that school should be a

³ That is, in the combined civilian labor force and armed forces.

full-time job for the child until he is at least 16, and that a much larger proportion of those aged 16 and 17 years ought to attend school than are now doing so.

In April 1947, the number of boys and girls aged 14 through 17 years, estimated by the United States Bureau of the Census as being employed full-time or part-time, was nearly 2 million. This number was twice as large as in 1940, before the United States entered the war, despite the fact that the population of this age group decreased by about a million between 1940 and 1947. Three times as many children of 14 and 15 years were employed in 1946 and 1947 as in 1940.

Kinds of Employment

The kinds of work open to young people are influenced by both Federal and State child labor laws and the effectiveness of their administration, as well as by industrial activity and employment practices. The child labor provisions of the Fair Labor Standards Act of 1938 fixed a national standard for the employment of children in establishments producing goods for interstate or foreign commerce. The basic minimum age for employment in such establishments is 16 years, with a minimum age of 18 in occupations found and declared hazardous; employment, however, is permitted for children 14 and 15 years of age outside school hours in certain limited nonmanufacturing and nonmining occupations under restrictions established by ruling.

In 18 States a basic 16-year minimum age has been established by State law, which usually applies to all work in factories, and in general to most work during school hours. In most of the remaining States the basic minimum age is 14 years.

Industrial practices and job requirements also place limitations on the employment of young persons. Actually, much of the existing work of young people is in the kinds of establishments that traditionally have comparatively small numbers of employees and relatively undeveloped personnel policies. In the larger establishments with planned personnel policies, the tendency appears to be toward employment of fewer workers under age 18.

The group of nearly 2 million young workers aged 14 through 17 years who were reported at

work in April 1947 by the Bureau of the Census, had found jobs in many areas of employment. A third of the 16- and 17-year-old workers were in trade, a fifth in manufacturing, and a fourth in farm work. Of those aged 14 and 15 years, nearly half were engaged in agricultural industries, a fifth in service industries, and a fifth in trade; a tenth were in manufacturing industries.

For example, in one city—Louisville, Ky.—where the general minimum age for employment under the State law is 14 years, half of the youngest workers (aged 14 and 15 years) were in retail trade—most of them in 5- and 10-cent stores, grocery stores, and restaurants. A third were in service industries, principally in laundries and hospitals, and in domestic service in private homes. Only 10 percent were in manufacturing establishments. The boys and girls 16 and 17 years of age had fewer jobs in trade, that is, 29 percent; about 20 percent were in the service industries, mostly in laundries and business and repair services; 35 percent were in manufacturing.

The jobs obtained by young people under 18 years of age, particularly by those under 16 years, are often undesirable from the point of view of hours and working conditions. Visits to establishments made by inspectors of the United States Department of Labor, to obtain compliance with the child labor provisions of the Fair Labor Standards Act, disclosed many such examples. In the fiscal year ending June 1947, for instance, children 14 and 15 years of age, and even younger, were found working on ice-delivery trucks, in meat-packing plants, and in woodworking establishments. In canning and packing establishments, for example, many worked for long hours—sometimes up to 65 a week—or late at night. Children of 14 years were working in a bakery, boxing pies and loading them on trucks, from 6 p. m. to midnight or 3 a. m. In a cigar-manufacturing establishment, children 15 years of age worked on the night shift until 11:30 p. m., and some as young as 14 worked up to 52 hours a week. A 14-year-old boy lost an arm while operating an extractor in a laundry; a 15-year-old girl lost three fingers of her right hand at the second joint when the metal-cutting machine which she was operating became jammed; a 17-year-old boy, who had worked for 14 consecutive hours when injured, lost four fingers while operating a meat-grinding machine.

As the volume of employment of young people receded between 1945 and 1947, there appeared to be a persistent and serious tendency toward violation of legal safeguards for their employment. According to inspections made under the child-labor provisions of the Fair Labor Standards Act, as many minors under 18 years of age were found employed in violation in the fiscal year 1947 as in 1946. Compared with the wartime peak of 1945, the number of boys and girls under 18 employed in inspected establishments dropped 70 percent in 1947, whereas the number found to be employed in violation of the act dropped only 28 percent.

Hidden Unemployment of Youth

The recent wide employment of boys and girls aged 14 through 17 years of age has obscured emerging unemployment among teen-age youth. There is a break between school and occupational adjustment that is serious for many young people currently coming of age. Despite the decrease from wartime levels in employment of boys and girls of these ages—roughly the high-school-age group—little change has occurred in the level of high-school enrollment, which had dropped markedly during the war.

The emerging problem of unemployment for out-of-school youth is concretely revealed by a survey made by the United States Department of Labor in the spring of 1947.⁴ Louisville, Ky., a city of varied industries and a generally high level of employment at the time, was selected for this study. One phase of the study was interviewing 524 out-of-school boys and girls 14 through 19 years of age, and another, interviewing selected employers on their viewpoints and practices in employment of young people.

Among the 217 boys and girls 16 and 17 years of age out of school and in the labor market in this city, 1 was out of school and wanting work to every 2 who were out of school and working; among the 194 who were 18 and 19 years old, 1 in 5 was out of work; of the 113 in the youngest group, aged 14 and 15 years, nearly half were jobless. This was not merely temporary unemployment. Of these young people who were without jobs, two-thirds had been seeking and wanting work for a month or more.

⁴ The survey was made by the Child Labor and Youth Employment Branch, then in the Division of Labor Standards, and subsequently transferred to the Wage and Hour Division as the Child Labor Branch.

The findings in Louisville as to unemployment among young persons out of school are consistent with information obtained from scattered localities in various ways. Declining job opportunities for youth, particularly those under 18 years of age who have not completed high school, are indeed a feature of many reports of school and employment offices which have given special attention to young people and have made reports on this phase of the program.

When young people leave school, practically all want to work; they want to grow in personal as well as economic independence, and they want money to be able to buy and do things. For many young people percentages of unemployment as high as among the Louisville group can result only in a waste of valuable time and energy and a depressing effect upon their occupational future. All these symptoms point ahead to a serious problem of joblessness, idleness, and discouragement among out-of-school youth of high-school age unless vigorous countermeasures are taken.

The break between school and satisfactory occupational adjustment exists because of the gap between the preparation given the young person by family, school, and community, and the demands of employers seeking efficient workers.

Employers' attitudes toward taking on young workers, of course, greatly affect opportunities for employment. As shown by interviews in the Louisville study, many employers stated that youngsters under 18 were too immature and undependable for serious application to a job, or, in case of work of high speed and highly repetitive nature, were not physically developed enough to carry it. Employers also seemed to be becoming more interested than in the past in their workers having high school education. Even if the immediate job was unskilled, they expressed the opinion that the high school training and experience helped boys and girls to learn to get along with other people and made them better adjusted, and that the general knowledge acquired added to their value as workers. One personnel manager said:

Education is the most important factor in the business and personal life of an individual. I ask every applicant why he did not complete high school, because I believe that the ability to complete a goal and finish a task is a significant index of stability. Since all work is becoming more specialized it is not

what you learn but your ability to solve a problem and complete a goal that matters.

Reasons given by young people for not finding jobs dovetail with employers' attitudes. They said, "I can't find a job because I'm not old enough; because the employment service doesn't have jobs for boys under 18; because someone else always gets there first; because I haven't got enough education for the kind of job I want." The reasons why so many jobs these children obtained were short-lived reflect similar difficulties. Loss of a job was often due to the young worker's dissatisfaction with the conditions or discipline on the job, or the employer's dissatisfaction with the young worker's performance.

The inadequacy of the equipment of many out-of-school youths in the labor market is suggested by the situation in Louisville. As to schooling, the majority of the out-of-school young persons who were interviewed had left school before completing high school, and almost two-thirds of the group studied who were under 18 years of age had left school without completing more than the eighth grade. Many had left because they did not like school or because they were dissatisfied with the particular courses open to them; on the other hand, many had left because of economic pressures due to problems of family support or lack of personal funds. In addition, the ability to get a job easily seemed to depend to some extent upon greater alertness or more knowledge of how to look for jobs on the part of one applicant as compared with that of another, or upon help from friends or relatives. It was often the shy, less alert boy or girl, with little idea of where to go or what he wanted to do, who was experiencing a serious and discouraging amount of idleness. Very often, too, the Negro boy or girl searching for a job encountered great difficulty in locating one.

There emerges from these facts a picture of many young people out of school and in the labor market without the maturity, personal qualifications, and educational equipment that most employers want. Cut adrift from school, in need of earnings, yet with frequent and sometimes long periods of unemployment when they cannot satisfy that need, they are developing traits of restlessness, laziness, and dissatisfaction that undo in them the homely virtues that they so badly need for satisfactorily holding any job.

3. Employment and International Conditions

NEEDS ABROAD HAVE AFFECTION the employment situation in this country not only during the war, but in the postwar period as well. Thus, almost 2½ million persons in nonagricultural industries were employed, directly or indirectly, in the production of goods for export during the first half of 1947. The effect of this foreign demand, showing employment attributable to exports among the different industrial groups, is shown in the article Employment Resulting from U. S. Exports.

Labor force developments abroad—especially in the Marshall Plan countries—will also have important effects upon our economy in the years ahead. An appraisal of the manpower situation and its relation to programs of industrial recovery in these countries is discussed in the article The European Labor Force and the ERP.

Employment Resulting From U. S. Exports

MARVIN HOFFENBERG¹

EXTENSIVE FOREIGN PURCHASES as well as record peacetime domestic spending—by households, business, and Government—accounted for the maintenance of near-peak levels of employment and production in the first 6 months of 1947. Measured either in terms of the volume of exports or the net balance between exports and imports, foreign demand was at an all-time peacetime high.

The domestic effect of foreign trade cannot be judged solely on the basis of the amounts of goods bought or sold, nor on the amount of employment generated. There are many criteria, political as well as economic, for evaluating the effects of foreign trade upon the domestic economy. As an aid in exploring the economic effect, however, the Bureau of Labor Statistics has undertaken a detailed analysis of the employment attributable to exports during the first half of 1947. A similar analysis for 1939 was published at an earlier date.²

Export Employment and Value

In the first 6 months of 1947, when the value of goods exported was 7.8 billion dollars, nearly

2.4 million persons were employed directly and indirectly in nonagricultural industries in the production of such goods. These persons constituted about 5.6 percent of all nonagricultural employees in this period. In 1939, when commodity exports were valued at 3.2 billion dollars,³ the corresponding employment was only 944,000 or 3.1 percent of nonagricultural employees. Despite the greater importance in 1947 of non-agricultural exports in relation to total exports, the increase from 1939 in nonagricultural export employment was somewhat less than the rise in total physical volume of exports. Longer working hours and greater output per man-hour more than compensated for the changes in types of goods exported between 1939 and 1947.

In some industries, considerably more than 5.6 percent of all employees were engaged in the production of goods for export. In the durable goods manufacturing industries, in mining, and especially in the capital goods industries, the proportions were much higher than average. (See accompanying table.) This is the direct result of foreign needs for the rehabilitation and expansion of industrial facilities. Almost 29 percent of all export workers were in these particular industries, and they accounted for 14 percent of the industry employment. In 1939, the corresponding percentages were 26 and 10.

¹ Of the Bureau's Productivity and Technological Developments Division.

² Employment Resulting From United States Exports, 1939, Monthly Labor Review, July 1945.

³ The 3.2 billion dollars should be compared with 8.5 billion dollars, the annual rate for the first half of 1947 in 1939 dollars.

Employment attributable to exports from the United States by industry group, 1939, and January-June 1947

Industry	Number of employees (in thousands) in nonagricultural establishments ¹						Percent of employees in nonagricultural establishments dependent upon exports	
	1939		First half 1947					
	Total	Dependent upon exports ²	Total	Dependent upon exports	Directly	Indirectly	1939	First half 1947
All groups	30,288	944	41,963	2,364	1,189	1,175	3.1	5.6
Fod, tobacco, and kindred products	1,258	29	1,610	59	50	9	2.3	3.7
Iron mines, steel works, and rolling mills	483	53	665	131	67	64	10.9	19.7
Iron and steel products ³	600	38	1,054	113	54	60	6.3	10.7
Electrical machinery	425	30	909	105	91	14	7.2	11.5
Machinery, except electrical ⁴	777	92	1,570	246	221	25	11.9	15.7
Motor vehicles	466	44	955	133	124	8	9.3	13.9
Transportation equipment, except motor vehicles	241	26	636	61	58	3	10.7	9.6
Nonferrous metals and their products ⁵	267	38	423	61	23	38	14.4	14.5
Nonmetallic minerals and their products ⁶	439	21	610	47	30	17	4.7	7.7
Petroleum production and refining	295	32	382	34	19	15	11.0	8.8
Coal mining and manufactured solid fuel	504	39	505	94	58	35	7.7	18.5
Manufactured gas and electric power	432	13	458	22	—	22	3.0	4.7
Chemicals	445	38	753	84	57	28	8.5	11.2
Lumber and furniture	860	35	1,203	75	37	38	4.2	6.2
Wood pulp, paper, printing, and publishing	893	29	1,165	65	27	38	3.2	5.6
Textiles and apparel	2,129	55	2,569	242	187	54	2.6	9.4
Leather and leather products	383	10	396	19	17	3	2.7	4.9
Rubber	150	12	286	42	23	19	7.7	14.7
All other manufacturing ⁷	432	20	695	61	48	13	4.5	8.8
Construction	1,150	—	1,605	—	—	—	—	—
Transportation	1,984	133	2,699	266	—	266	6.7	9.8
Trade	6,614	114	8,439	295	—	295	1.7	3.5
Business and personal services ⁸	5,215	44	7,088	109	—	109	.8	1.5
Government (Federal, State, and local)	3,857	1	5,289	2	—	2	(*)	(*)

¹ Totals do not in all cases add exactly because of rounding.² The estimates shown here are revisions of those published in the Monthly Labor Review, July 1946.³ Includes iron and steel foundry products and iron products not produced in the blast furnaces and steel works and rolling mills industry.⁴ Includes agricultural machinery, tractors, engines and turbines, machine tools and accessories, heating equipment, merchandising and service machines, industrial equipment, and household equipment.⁵ Includes nonferrous metal mining.⁶ Includes nonmetallic mineral mining.⁷ Includes products such as professional and scientific instruments, clocks and watches, jewelry, photographic apparatus, optical instruments and ophthalmic goods, surgical and medical instruments and supplies, etc.⁸ Includes communications, finance, and services.⁹ Less than one-tenth of 1 percent.

Distribution of Export Employment

Slightly more than half of the 2,364,000 export workers in 1947 were engaged directly in the production of export goods. The other half was indirectly required to produce and transport the raw materials, components, and services purchased by other industries for incorporation in goods for export. In the capital goods industries, 90 percent of the employment generated by exports was directly required for the production of export goods, and 10 percent for the production of goods to be incorporated by other industries in export products. In trade and service industries, on the other hand, virtually all export employment was indirectly generated. The iron mines, steel works, and rolling mills industry occupied an intermediate position, with slightly more than half the export workers directly engaged in fabricating goods for export and the remainder pro-

ducing goods to be used by other industries in export products

The preceding table presents estimates of the amount by which employment would have declined in each industry if there had been no production of goods for export in the first 6 months of 1947, and if there had been no change in the volume of domestic demand, in imports, or in output per man-hour and hours of work. The results consequently provide some, but not all, of the data required to appraise the effect of foreign trade on employment. The appraisal is incomplete for a variety of reasons, among them the following: (1) It is the net balance between exports and imports, rather than the level of exports as such, which determines the net contribution of foreign trade to domestic employment. (2) The estimates shown here do not include any allowances for possible secondary or "induced" effects. For example, to the extent that domestic wage, salary, or profit payments have been increased by exports, domestic demand for goods and services

has been reinforced. The production and employment that was required to meet this demand is excluded from the estimates. Likewise excluded is employment due to additional plant and equipment which may have been required because of production of export goods. (3) No account has been taken of any possible shifts from foreign to domestic purchasers. In many industries (motor vehicles and steel, for example), a drop in exports might easily be balanced by a corresponding rise in domestic expenditure. In other industries, such as rubber tires and tubes and radios, a decline in exports might result in a proportionate decline in employment, and these in turn might cause a decline in the domestic demand for other goods.

The estimates also purposely omit the effect of export demand on agricultural employment. No unique relationship exists between employment in agriculture and agricultural production. This, of course, does not mean that a drop in exports would leave agriculture unaffected. A drop in exports would tend to deflate farm prices and income and, hence, affect the level of farm expenditures. It is doubtful, however, if such a drop would bring about a significant decrease in agricultural employment. For example, from 1909 to 1929, the number of hired farm workers varied between 2.8 and 3.0 million workers despite considerably sharper variations in the volume of production. The omission of proprietors, self-employed, and own-account workers, farm and nonfarm, from the estimates is based on similar reasons.

Although it is possible to relate domestic employment to exports, a clear-cut relationship between domestic employment and purchases of foreign-made commodities cannot be formulated. United States imports range from noncompetitive, technologically required items like tin to competitive luxuries such as English riding boots. For competitive goods, an attempt might be made to trace the effect of a shift to domestically produced items. For noncompetitive items such as tin, this is nearly impossible. Cessation of such imports would promptly force a change in the domestic technical and economic structure. Tin, for example, is used not only in canning, but also in solder, machine bearings, and in the dyeing of textiles. Such technological changes would affect employment, but the ramifications cannot be foreseen.

Description of Procedure

The estimates given here are based on the Bureau of Labor Statistics study of interindustry relations for 1939. This study investigates the flow of goods and services from one industry to another as raw materials are gradually transformed into finished commodities. On the basis of these data, which allow for the mutual dependence and division of labor among industries, it is possible to translate foreign purchases of finished goods into the production of raw materials and intermediate products required to maintain the commodity exports.

The basic steps used in preparing the employment estimates were as follows:

The current value of exports in the first half of the year 1947 were classified by industry of final fabrication to obtain the output directly exported by each industry. The basic export data used were those tabulated by the Foreign Trade Division, Bureau of the Census. An effort was made to eliminate from the calculation the exports of used goods and war surplus goods shipped abroad, the export of which generates no current employment. On the basis of current information, it is impossible to identify such commodities when shipped abroad by private traders; however, it was possible to eliminate some specific items, such as ships, for which information is available. The effects of Army shipments to occupied countries for relief purposes in Army ships were not included in any of the estimates.

(2) Since data on interindustry relationships are based on 1939 prices it is necessary to translate the current value of exports into 1939 dollars. This conversion was made industry by industry, using a separate price index for the products of each industry. The indexes were based upon domestic price changes weighted by export values for detailed commodities and were specially constructed for the purposes of this article.

(3) By use of the interindustry relationships data, estimates were derived of the output of raw materials, components, and services required in each industry to support the production of export goods in other industries. This, of course, was also valued in 1939 dollars. At this point, the calculations yielded both the direct and indirect output required by the level of current exports, all expressed in 1939 dollars.

(4) Total current output for export by each industry during the first half of 1947 was then converted to an annual rate and percentages were calculated based upon the total net output of each industry in 1939. For this purpose, net output is defined as the gross value of all products produced domestically, plus imports, minus the value of all products consumed within the industry.

(5) The percentages derived in (4) were applied to the number of production workers in 1939 in each industry. This yielded an estimate of export-induced employment expressed in terms of 1939 levels of output per man-hour and average working hours.

(6) The estimates derived in (5) were adjusted for changes in hours and in man-hour output subsequent to 1939, industry by industry. An allowance for export-induced employment of salaried workers was added to yield the final estimates.

The European Labor Force and the ERP

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THE LABOR FORCE in the countries participating in the European Economic Recovery Program² was larger in 1947 than the labor force of the prewar period in most of these countries, but it was not so well adapted to the tasks in hand.

Factors that have tended to enlarge the labor force since 1939 are varied. Many young people have come of working age and have obtained jobs. War migrations and political changes resulted in shifts of large numbers of people from eastern into western European countries. Many women who entered the labor market during World War II are still working in factories, stores, and offices. However, in some countries the number of gainfully occupied women is less than in the prewar period.

Other developments have reduced the effectiveness and changed the composition of the labor force. In some countries a notable shortage of

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young men exists. There are also shortages of skilled workers. A larger proportion of the gainfully occupied workers in most of these countries are in the armed forces and in other Government services than before the war.

A reduction in productivity is the inevitable result of war. Not only were most of the killed and wounded men in the most productive age groups, but there was also enormous destruction of the means of production and transportation. During the war, workers were trained largely for war industries or for military service and considerable retraining is required for effective employment in peacetime production. Shortages of raw materials have also added to the difficulty of raising production to prewar levels.

Shortly after VJ-day, indexes of industrial production for seven western European countries varied from 41 percent of the 1938 average in the Netherlands to 105 percent in neutral Sweden. In June 1947, the indexes ranged from 91 percent of the 1938 level in the Netherlands to 122 percent in Norway. The situation is summarized below; United States data are included for comparative purposes.

	Indexes (1938=100)	
	September 1945	June 1947
Belgium	51	104
Denmark	73	100
France	160	97
Ireland ³	93	109
Netherlands	41	91
Norway	74	122
Sweden	105	108
United States	191	208

¹ January 1946.

² Data are for quarterly periods including dates listed.

Source: Monthly Bulletin of Statistics, October 1947. Statistical Office of United Nations.

It cannot be assumed that consumption levels have increased as much as production. In post-

³ Plans for the European Recovery Program were transmitted to Secretary of State Marshall on September 22, 1947, by the Committee of European Economic Cooperation (CEEC). The CEEC included representatives from Austria, Belgium, Denmark, France, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland, Turkey, and the United Kingdom. The plan, which as proposed includes these 16 countries and western Germany, contemplates restoration of prewar cereal production, increases in other types of agricultural output, raising coal production to a level 33.3 percent above 1938, expansion of electricity output 40 percent over 1947, development of oil refining capacity to two and a half times the prewar level, increase of crude steel production to 20 percent above 1938, expansion of inland transport to carry a load 25 percent greater than in 1938, restoration of prewar merchant fleets, and supply from European production of most of the capital equipment needed for these expansions.

In presenting the program for European recovery, the CEEC has undertaken among other things to use all its efforts to make the fullest and most effective use of existing productive capacity and all available manpower. For an account of the manpower section of the CEEC report, see Monthly Labor Review for November 1947 (p. 567).

war Europe, it is necessary to devote to capital goods output a large part of the labor force which normally would produce consumer goods for home use. War-damaged plants and transport facilities must be rebuilt or repaired. Consumer goods shortages were aggravated by the very severe winter of 1946-47 and the drought in the summer of 1947. Another factor limiting current supplies of both capital and consumer goods is related to the changed position of the western European countries as regards ownership of capital investments abroad. During the war, many of these nations sold such investments to finance war purchases, and the goods which they formerly purchased with the interest on investments must be paid for in other ways, or not purchased at all.

TABLE 1.—Population and labor force¹ in the United States and countries participating in the European Economic Recovery Program, prewar and postwar periods

Country	Dates		Population			Labor force							
	Prewar	Postwar	Thousands of persons		Percent change	Percent of population		Thousands of persons					
			Prewar	Postwar		Prewar	Postwar	Total	Men	Women			
United States	June 1940	June 1947	131,970	143,778	+8.9	43.7	45.2	57,640	64,007	42,680	45,839	14,960	18,168
Austria	1939	June 1947	6,972	6,916	-8	52.3	—	3,649	—	2,151	—	1,498	—
Belgium	1939	1946	8,306	8,389	-1	46.3	—	3,750	—	2,758	—	992	—
Denmark	1940	1946	3,844	4,101	+6.7	51.3	—	1,971	—	1,286	—	685	—
France	March 1939	July 1946	41,500	40,780	-1.7	48.8	48.3	20,255	19,700	12,937	12,270	7,318	7,430
Great Britain	June 1939	June 1947	46,466	48,371	+4.1	42.5	41.7	19,750	20,158	14,656	14,413	5,094	5,745
Iceland	1940	1946	—	121	132	+9.1	43.8	—	53	—	38	—	15
Ireland	1936	Mid-1947	2,968	2,980	+4	45.1	—	1,339	—	988	—	351	—
Italy	1936	End-1946	42,445	45,646	+7.5	43.2	45.8	18,346	20,909	13,099	—	5,247	—
Netherlands	1938	1946	8,640	9,299	+7.6	39.0	40.2	3,370	3,740	—	—	—	—
Norway	December 1939	December 1946	2,929	3,100	+5.8	44.3	42.3	1,299	1,312	—	—	—	—
Portugal	1940	1946	7,722	8,223	+6.5	37.8	—	2,920	—	2,270	—	650	—
Sweden	1940	1946	6,371	6,719	+5.5	47.1	—	2,999	—	2,189	—	810	—
Switzerland	1941	December 1946	4,266	4,506	+5.6	46.7	—	1,992	—	1,422	—	570	—
Turkey	1935	October 1945	16,157	18,861	+16.7	49.0	—	7,921	—	4,635	—	3,286	—
Germany	May 1939	March 1947	40,300	45,000	+11.7	49.8	41.4	20,084	18,641	12,726	12,090	7,358	6,551

¹ The labor force includes all persons normally engaged in remunerative activities such as employers, self-employed persons, salaried workers, wage earners, unemployed persons who normally fit into one of these classifications, and "unpaid family workers." However, minor differences in the definitions and variations in the method of enumeration, and the timing of the censuses and surveys invalidate intercountry comparisons of the proportion of population in the labor force, without adjustments for seasonal, cyclical, and occupational factors which it has not been possible to make.

² July 1940.

³ Preliminary population estimate by the U. S. Bureau of Census.

⁴ Based on the number of ration-holders, including DP's.

⁵ Labor force figures are based on 1930 census data which recorded a total population of 8,092,000; however, 1939 population estimates are given in table to show the population change between 1939 and 1946.

⁶ Population figures are from the March 1946 census; the labor force data are based on estimates for July 1946 made by the Central Statistical Office of the Ministry of Labor and Social Security.

⁷ Labor force data represent the total working population of males aged 14 to 64 and of females aged 14 to 59. Workers in indoor domestic service are excluded and part-time employed women (estimated at 680,000 in June 1946) are included at half their numerical strength.

⁸ Estimated 69,000 domestic workers have been added to original total labor force figure for 1939.

⁹ Data for prewar and postwar refer to present area of United States,

Population and Size of Labor Force

Significant population increases occurred in Italy, Portugal, Switzerland, Denmark, the Netherlands, the Scandinavian countries, and Turkey after 1939. Small increases took place in Great Britain and Ireland; but slight losses occurred in France, Belgium, and Austria. (See table 1.)³

The labor force has also increased in size since the prewar period in most of the participating countries; France and western Germany are nota-

³ Insofar as material was available, labor force statistics for all of the countries participating in the European Economic Recovery Program were incorporated in this article. Greece and Luxembourg are the only countries in this group which were omitted from coverage, owing to lack of pertinent facts. Certain statistics for the United States were included for purposes of comparison.

British, and French Zones, excluding Berlin. Postwar figures exclude DP's in camps, internees, and PW's.

SOURCES. General: Prewar data for Austria, Belgium, Denmark, Iceland, Ireland, Italy, Portugal, Sweden, Switzerland, and Turkey from the Yearbook of Labor Statistics, 1945-46, International Labor Office, Montreal, 1947. Postwar population estimates for Belgium, Denmark, Iceland, Ireland, Portugal and Sweden from the Monthly Bulletin of Statistics, September 1947. Statistical Office of the United Nations, Lake Success, N. Y.

By country: Austria—Monthly Bulletin of Austrian Statistics, June 1947 (p. 1), Economic Division of the Allied Commission for Austria, British Element. France—Revue Française du Travail, September 1947 (p. 774), Ministry of Labor and Social Security, Paris; Bulletin de la Statistique Générale de la France, May-June-July 1947, (p. 385), Ministry of National Economy, Paris. Great Britain—Monthly Digest of Statistics, August 1947, Central Statistical Office, London. Germany—The Statistical Annex, April 1947 (p. 7), Report of Military Governor, United States Zone. Italy—Data supplied by Ministry of Labor and Social Security. The Netherlands—First Memorandum on the Central Economic Plan 1946; Central Planning Bureau of the Netherlands, the Hague, 1946, (p. 11); Maandschrift, February-March, 1946, (p. 198), Central Bureau of Statistics, The Hague. Norway—Manpower Budget, National Budget, Memorandum of the Finance Ministry, February 28, 1947; and supplementary data supplied by the Norwegian Embassy in Washington. Switzerland—La Vie Economique, July 1947, (p. 291), Federal Department of Public Economy, Berne. Turkey—Census of 1945.

ble exceptions. The available statistics on changes in the size of the labor force are summarized below:

	Percent of change		
	Total	Men	Women
United States.....	+11.0	+7.4	+21.4
France.....	-2.9	-5.2	+1.5
Great Britain.....	+2.1	-2.8	+12.8
Germany ¹	-7.2	-5.0	-11.0
Italy.....	+14.0	.....	.....
Netherlands.....	+11.0	.....	.....
Norway.....	+1.0	.....	.....

¹ United States, British, and French Zones, excluding Berlin.

It is probable that the labor force increased also in Portugal, Switzerland, Sweden, Denmark, Turkey, and Ireland, because available information on age distribution indicates that in countries which did not suffer heavy war casualties, a rise in the productive age groups is associated with a general population increase.

Although the figures in table 1 reveal increases in the number of women workers in the United States, France, and Great Britain, reports indicate that the number of women in the labor force in some of the other countries has declined (e.g., Norway and Sweden).

The percentage of the population engaged in the labor force is higher in the postwar than in the prewar period in the Netherlands and Italy, about the same in France and Great Britain, slightly lower in Norway, and much lower in the western zones of Germany. These are the only countries for which data for such a comparison are available. The sharp decline in Germany can be attributed to the large proportion of older persons and young children among the influx of expellees from other regions, to heavy war casualties, to the continued absence of prisoners of war from the ranks of the German labor force, and to a relaxation of the high degree of regimentation of the 1939 German war economy.

Character of the Labor Force

The postwar labor force, even where it has not diminished in size, is less well adapted than in prewar times to the needs of the European economy—needs which have been sharpened by the material losses of war and occupation. Skilled workers who had been drafted into armies or for work in Germany returned with skills impaired by their war experiences. Training programs had been interrupted or curtailed. The women who

entered the labor force and the younger recruits did not receive the full training that had been customary.

From this maladjusted labor force, large numbers of young, able-bodied men (the most needed element for productive employment) have been withdrawn and are retained in the armed forces.

Outside of Italy, where almost 1.5 million were reported as unemployed late in 1947, spot labor shortages rather than unemployment characterized the postwar European economy. In addition to Italians wishing to emigrate, displaced persons and German prisoners of war were the primary external sources of additional manpower. In the fall of 1947, approximately 520,000 employable displaced persons still had not been resettled in countries where appropriate use could be made of their occupational skills.

Large numbers of PW's were still being held in the fall of 1947, although repatriation of all German PW's by the end of 1948 was agreed upon at the Council of Foreign Ministers in Moscow in the spring of 1947. The Soviet Union had about 800,000, France about 450,000, and Great Britain about 225,000.⁴ France has offered those German PW's willing to remain a year's contract of employment; 85,000 PW's had accepted by November 1, 1947, and 40,000 additional applications were being processed. Great Britain has made a somewhat similar offer for employment in agriculture only.

Occupational trends between 1939 and 1946-47 cannot be fully documented. However, the evidence indicates a lack of uniformity in such trends from country to country, except for a general increase in the armed forces and in other government services. (See table 2.) According to French estimates, there was a marked decline in agricultural employment and some increase in commerce and services. The French, however, reported that 300,000 workers were moved from nonproductive into productive occupations during the year 1946-47. In Great Britain, employment in agriculture increased, but in distributive trades it declined. A decrease in the relative number employed in agriculture in Norway was accompanied by an increase in manufacturing em-

⁴ Soviet figures were issued by the Soviet Government at the meeting of the Council of Foreign Minister in Moscow and refer to the spring of 1947. French and British figures were computed by deducting monthly official repatriation rates through the month of September 1947 from totals announced in the summer of 1947.

ployment; estimates obtained in an official employment survey in Sweden show a similar shift.

TABLE 2.—*Labor force structure in France, Great Britain, and Norway, prewar and postwar periods*

Classification	Percent distribution					
	France		Great Britain		Norway	
	Mar. 1936	July 1946 ¹	June 1939	June 1947 ²	Dec. 31, 1939	Dec. 31, 1946
Agriculture, forestry, and fishing	35.6	32.5	4.8	5.4	39.0	37.7
Mining and quarrying	1.7	1.4	4.4	4.1	(³)	(³)
Manufacturing	25.5	24.2	34.5	35.0	15.0	18.2
Building and construction	3.7	3.4	6.6	6.5	5.3	6.9
Transports and communication	5.1	5.1	6.3	6.9	7.7	7.4
Public utilities	.6	.6	1.2	1.3	.5	.4
Commerce and services (total)	21.3	22.5	25.9	21.8	21.3	20.2
Commerce and banking	13.3	14.1	—	—	14.4	13.5
Personal and domestic services	8.0	8.4	—	—	6.9	6.7
Distributive trades	—	—	14.6	11.5	—	—
Commerce, finance, personal, and domestic services	—	—	11.3	10.3	—	—
Government administrative services	4.0	7.5	7.4	10.6	5.0	6.7
Armed forces	2.5	2.8	2.5	6.4	1.4	2.1
Unemployed	(³)	(³)	6.4	7.2	5.8	.4
Total ⁴	100.0	100.0	100.0	100.0	100.0	100.0

¹ French figures do not include approximately 500,000 German PW's; 55,000 were employed in mining, 100,000 in construction and public works, 250,000 in agriculture, and 95,000 in other industries.

² Excludes German PW's, about 127,000 of whom were employed in agriculture; 34,000 in the housing program; and 12,000 in miscellaneous work for Government departments.

³ Mining and smelting included in manufacturing.

⁴ Estimated 69,000 domestic workers included in this category.

⁵ Professional army only.

⁶ Unemployed in France are classified according to their usual or last occupation; 4.3 percent of the labor force was unemployed in 1936 and an estimated 2.5 was unemployed in 1946.

⁷ Unemployed and demobilized servicemen who had not yet obtained employment.

⁸ For absolute numbers, see table 1.

Sources: See table 1.

Productivity and Output

From what has been said concerning changes in the character of the labor force of the participating countries, it is not surprising that its efficiency has declined in many fields. Workers' efficiency depends on personal as well as environmental factors, both of which deteriorated under wartime influences—housing conditions much worse; food scarce and hard to obtain; the search for food encroaching on recreation and even on time spent at work; prices of many needed consumer goods beyond the wage earner's reach; inflation threatening to destroy not only the value of his money wage but of his social security benefits; increased social and political frictions in many areas. Moreover, efficiency suffered also because workers' tools and capital equipment of European industries were, to a large extent, either destroyed or became worn out and obsolescent. The CEEC report stresses mechanization and replacement of

old machinery as essential measures to increase productivity.

An illustration of changed productivity may be taken from the coal industry, which, of course, is of crucial importance in the recovery program. The drop in coal output in western Europe compared to prewar days is due in part to a reduction in the number of workers employed in the important coal-producing countries of Great Britain and Germany, and in part to a decline in the European miner's output per shift. Whereas in the United States coal output per man-shift rose 18 percent from 1938 to 1945 (according to latest available data), in European mines productivity in May 1947 was from 66 to 94 percent of the 1938 level in the various countries for which figures are shown in table 3. However, the May 1947 output per man-shift was considerably higher than it had been at the end of the war (in 1945), having increased 6.7 percent in Great Britain, 8.6 percent in France, 9.8 percent in the Ruhr, 9.6 percent in the Saar, and 40.1 in the Netherlands.

TABLE 3.—*Coal output per man-shift in the United States and selected western European countries, 1938 and 1947*

Country in order of 1947 rank	Output per man-shift			
	1938		May 1947: metric tons	Percent change, 1938 to 1947
	Metric tons	Rank		
United States (bituminous coal)	4.44	1	15.24	+18.0
United Kingdom	1.17	4	1.10	-6.0
Netherlands	1.65	2	.97	-41.2
Germany:				
British Zone (Ruhr)	1.55	3	.89	-44.0
French Zone (Saar)	1.14	5	.84	-26.3
France	.83	6	.61	-26.5
Belgium	.75	7	.59	-21.3

¹ Annual average 1945 (latest available data).

² Source: 1938 figures from the Report of the Fuel and Power Committee of the CEEC; 1947, Monthly Coal Statistics, European Coal Organization. Refers to underground and surface workers.

Outside of the coal industry, few country-to-country comparisons of productivity can be made. Such evidence as is available points to lowered productivity in the Netherlands, Denmark, France and Germany (United States and British Zones). The Netherlands Central Statistical Bureau estimated that productivity in April 1946 was less than 70 percent of that in 1938. The French Government estimated that productivity in June 1947 was at about 83 percent of the 1938 level.

In Great Britain, the Oxford Institute of Statistics estimated, on the basis of the 1947 national

income white paper, that output per worker of all enterprises increased 13 percent between 1938 and 1946. Comparisons of output per man-hour in 1938 and October 1946 for a dozen industries, also computed at the Institute, show increases ranging from 5 to 97 percent in seven industries (iron ore, pig iron, tin plate, iron and steel tubes, tiles, rayon yarn, and carpets) and decreases varying from 3 to 40 percent in five industries (wire, bricks, cotton spinning and weaving, and linoleum).⁵ Productivity appears also to have increased strikingly in electricity generating, gas, steel, and footwear.

Annual output per worker is affected also by the length of the workweek. Since the end of the war, hours actually worked have increased in France, Belgium, and the Netherlands and in other countries whose economies were disorganized by war and German occupation. On the continent, the normal scheduled workweek is generally 48 hours. In France, where the legal basic week is still 40 hours, the unions have agreed to a 48-hour schedule.

In Great Britain, where the average number of weekly hours worked rose to 50 during the war, shorter schedules (44 and 45 hours a week) were agreed to in numerous industries at the end of the war. Subsequently extensions of weekly hours were negotiated in coal mining, cotton spinning, and other key industries. Comparative changes in average weekly hours in three countries are:

	Average hours per week October 1938	Average hours per week April 1947
France ¹	39.4	44.8
United Kingdom.....	46.5	45.0
United States.....	37.4	40.0

¹ Includes time lost owing to absences.

Manpower Programs

Because most participating countries have been operating under full-employment conditions during the postwar period, manpower programs were designed to meet critical labor shortages and to improve the utilization of labor rather than to deal with unemployment. Manpower budgets were drawn up in France, Great Britain, the Netherlands, and Norway as a guide in determining policies. Some countries hope to fill part of their labor needs by immigration.

⁵ Bulletin of the Oxford University Institute of Statistics, July 1947 (p. 233) and October 1947, Comparisons of Prewar and Postwar Productivity, by P. D. Henderson (p. 350).

The extent and effectiveness of the postwar measures to improve labor utilization and organization of the labor market vary from country to country. Great Britain's comprehensive program is particularly notable. Both in Great Britain and on the Continent efforts to move workers into areas and industries where they are most needed have been hampered by housing shortages. In Nazi-occupied countries, years of resistance to occupation authorities established a fundamental resentment against Government controls; this resentment still persists even where the difficulties of the present situation have convinced legislators of the necessity for giving priorities in obtaining workers to certain industries.

Production Incentives: The scarcity of food and other goods have tended to undermine the incentives normally provided by money wages, because workers frequently find they cannot buy the goods they want even when they have the money. Because of the great need for increased coal production, particular efforts have been made to provide direct incentives for coal miners. Throughout western Europe, miners receive extra food rations, and special measures have been taken to provide housing and to channel other consumer goods into mining areas. In the Ruhr coal mines, a "point system" has been established in order to attract new recruits, to reduce absenteeism and turn-over, and to increase output per man-shift. The number of points received by the miners are graduated according to average hourly earnings, and points are deducted for absenteeism. The points may be used to obtain special rations of certain foodstuffs and other commodities.⁶ In France, legislation has given special advantages to miners with regard to base pay, social security, paid leave, and other benefits.

Recruitment and Training: Almost every western European country attempted to increase the size of its labor force, principally by retaining women and workers of retirement age in employment and by drawing in the physically handicapped. In Great Britain and France, pension regulations were amended to permit over-age or disabled workers to receive full benefits while still at work; Denmark postponed the pension age.

⁶ For an account of the point system in the Ruhr, see Notes on Labor Abroad, No. 2, June 1947 (pp. 22-24).

Vocational guidance services were strengthened in France, Belgium, Denmark, Great Britain, the Netherlands, and Norway. Programs for greater utilization of partially disabled workers were introduced in France, Denmark, Norway, Sweden, and Great Britain.

Special recruitment campaigns for women were conducted in Great Britain and France, coupled with the provision of special facilities in factories employing women (such as day care centers for children, shopping facilities, canteens, and other welfare programs) and the inducement of higher than prewar earnings. Women were employed in many jobs formerly pre-empted by men and frequently received the same rate for the job.⁷ In France a decree requiring equal pay was issued in July 1946.

Training programs have been geared both to training new recruits for industry and to retraining workers with impaired or unneeded skills.

The French training program, established by decree of November 9, 1946, provides for state-subsidized centers—some in, some outside of plants—under the supervision of national and departmental commissions composed of representatives of labor and management. The new courses are designed to train workmen for the metal and building trades in 6 months compared to the former 3-year vocational school course.⁸ Preliminary physical and vocational aptitude tests, the break-down of skilled jobs into simple processes, and the maturity of most trainees may account for part of this reduction in training time. By the middle of April 1947, 155 centers with a total of 11,089 trainees were in operation.⁹

In 1944, the British Government began to plan for training and retraining persons released from war jobs, the armed forces, and the women's auxiliaries to fit peacetime needs. Plans for each industry were developed in consultation with the employers' organizations and unions. The training is given in Government centers (including a number of residential centers for the disabled), at technical and commercial colleges, and in employers' establishments. Two years after the initiation of the plan (July 1947), 45,675 trainees

⁷ For a discussion of the narrowing of wage differentials between men and women in France, Great Britain and Sweden, see wage articles for the respective countries in the *Monthly Labor Review*, August 1947 (p. 149), September 1947 (p. 285), and October 1947 (p. 426).

⁸ *International Labor Review*, March-April 1947 (p. 300).

⁹ *Revue Française du Travail*, May 1947 (p. 515).

had been placed, and 20,035 were currently enrolled for training. Assistance to 83,749 persons, whose education and training was interrupted by war service, was also awarded between March 1943 and July 1947. In addition, 9,457 persons had enrolled in business training classes by August 16, 1947; and over 100,000 supervisors had attended British training-within-industry courses.

Special attention has been paid to recruitment and training of young workers for coal mining, cotton textiles, engineering (metal fabricating) trades, boots and shoes, and other industries. The Ministry of Labor, the Department of Education, and (in the case of coal) the Ministry of Fuel and Power assist in drafting and applying plans and in providing facilities, often in cooperation with national joint councils, for apprenticeship and training.

International Transfers of Labor: Countries with labor shortages have also turned to the recruitment of foreign workers and DP's. Such transfers have not yet reached the volume that was planned and steps to improve the methods used are envisaged by the countries participating in the recovery program.

Labor Market Organization: Employment services were reorganized in a number of the countries under review in order to achieve a better distribution of the labor supply. France, Great Britain, and Norway each assigned to their employment services duties not previously performed in peacetime.

Great Britain, in consultation with national representatives of labor and employers, restored both the wartime employment service control over hiring and the direction to essential industries of workers who apply for jobs and of those engaged in nonessential occupations or without occupation. Lists of essential and critical occupations and other methods of guidance in the placement of workers have been issued by the Ministry of Labor. Certain classes of persons of specified ages will be required to register. The Ministry of Labor stated that, in directing workers to employment, it will be guided by home responsibilities, age, and sex of worker, and that it will make every effort to place the worker near home and to allow a choice of jobs. During the first month of operation under the new control-of-

engagements order, although the power of direction was not once exercised, average weekly recruitment for textiles increased more than three-fold.

Norway in June 1947 passed a law empowering the Government to institute a similar control of engagements, to require registration of able-bodied workers, to limit the recruitment of Norwegians for work abroad, and to limit reductions in hours of work in industries affected with a public interest. Labor and management are represented on an employment directorate which administers certain of the regulations and advises the Government on employment policy.¹⁰ In France, the hiring and discharge of workers must, theoretically, be reviewed by the employment offices, but the administration is handicapped by personnel shortages and the resistance to labor controls inherited from the occupation period. After February 1946, spe-

cial provisions were made for the placement of civil servants, whose jobs had been abolished, through redistributive and reemployment centers established under the Ministry of Labor in consultation with the civil servants' unions.¹¹ The Netherlands controls hiring and discharges in the brick and building, earthenware, shoe and leather, textile, cigar, and diamond industries.

Belgium and the Netherlands reorganized their employment services after the liberation, to strengthen the recruiting, placement, and clearing functions, to integrate the service more closely with vocational training, and to give employers and unions representation in administration.

The diversion of workers from less essential industries will also be effected in Great Britain, France, Denmark, and Norway by government allocations of raw materials and control over new issues of stocks and bonds.

¹⁰ See Notes on Labor Abroad, No. 4, October 1947, pp. 17-19.

¹¹ Journal Officiel February 16, 1946, p. 1378.

Recent Decisions of Interest to Labor¹

Labor Relations

Refusal To Bargain Prior to Effective Date of Taft-Hartley Act: The National Labor Relations Board has ruled² that in a case in which an employer refused to bargain with a union prior to the effective date of the Labor Management Relations Act, 1947, the Board has the authority to order the employer to bargain, even though the union in question has not complied with the registration and affidavit requirements of the new law. The Board further ruled, however, that an order directing the employer to bargain, would not, under these circumstances, effectuate the policies of the act.

In concluding that the Taft-Hartley Act did not absolve employers of responsibility for acts committed prior to the effective date of the law, the Board relied on a general statute³ which provides that no liability incurred under a statute is removed by a subsequent repealing statute unless the latter so provides. The Board found no indication in the Taft-Hartley Act of an intent by Congress to erase liability for acts which were unlawful under the National Labor Relations Act prior to its amendment by the new law. The Board also noted that the language of the provisions of the Taft-Hartley law which require registration and affidavits is directed at future action. Therefore, the fact that these provisions have not been complied with does not bar the

Board from issuing remedial orders as to acts committed before the new law became effective.

However, the Board pointed out that although it has the legal authority to issue a remedial order, it is not required to do so if such an order will not effectuate the purposes of the act. The Board observed that an order directing an employer to bargain with a particular union is often tantamount to a certification of that union by the Board. It ruled that since it could not entertain a petition for certification of a union that has not complied with the registration and affidavit requirements it would not order the employer to bargain with such a union.

Board members Houston and Murdock dissented, arguing that there is an essential difference between an order to bargain and a certification, and that once the Board found the employer had violated the act, it had no discretion in determining whether to issue an appropriate order.

Injunction Against Secondary Boycotts: In a recent case⁴ the National Labor Relations Board made use of the provisions of section 10 (l) of the Taft-Hartley Act. This section requires the Board to petition a Federal district court for an injunction against certain forms of secondary boycotts whenever it has reasonable cause to believe that such boycott has been engaged in, and that a complaint should issue. In this case the Board's petition asserted that the union was inducing its members who are employees of stevedoring, grain shipping, oil transportation, and barge operating companies at the port of Albany, N. Y., to strike and refuse to handle products or perform services in order to compel their employers to cease doing business with certain of their customers and other persons. The Board issued a temporary restraining order against this activity without notice or a hearing, having found that irreparable injury, loss, and damage would result before notice could be served and a hearing had.

Union of Guards and Nonguards: The United States Supreme Court, in a decision prior to the enactment of the Taft-Hartley Act, had ruled that plant guards were entitled to the protection of the

¹ Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

² *In Re Marshall and Bruce Co.* (75 NLRB 13, Oct. 24, 1947).

³ 16 Stat. 431.

⁴ *Douds v. International Longshoremen's Association* (U. S. D. C. N. D. N.Y., Oct. 2, 1947).

National Labor Relations Act, and had remanded the case involved to the Circuit Court of Appeals for the 7th Circuit for appropriate action. That court recently dismissed the case⁵ on the ground that the new law does not require an employer to bargain with a labor organization as representative of its plant guards if that union admits to membership, or is affiliated with a union that admits to membership, employees other than guards. The union in question in this case was the International Association of Machinists, which the court found admitted to membership both guards and nonguards.

Wages and Hours⁶

Constitutionality of the Portal-to-Portal Act: A number of recent decisions by Federal district courts have upheld the constitutionality of the Portal-to-Portal Act of 1947. Typical of the cases so holding is *Seese v. Bethlehem Steel Co.*,⁷ decided by a district court in Maryland. The plaintiffs argued that the law was unconstitutional claiming that in its retroactive operation it deprived them of vested property rights in violation of the fifth amendment.

The court rejected this contention. It pointed out that any right that the employees in this case might have to compensation for so-called portal-to-portal activities did not arise by virtue of the contract with their employer but by virtue of the Fair Labor Standards Act as it was interpreted by the Supreme Court in the *Mt. Clemens* case. Such purely statutory rights, argued the court, may be taken away by Congress without violating the Constitution and in so doing the Congress was exercising that same power to regulate commerce that provided the basis for its enactment of the Fair Labor Standards Act. The court further ruled that Congress had the authority not only to take away the right to sue for portal-to-portal activities which were not compensable by contract or custom, but also to withdraw the jurisdiction of the inferior Federal courts to entertain such claims. It cited the Norris-LaGuardia Act as an

⁵ *National Labor Relations Board v. Atkins & Co.* (U. S. C. C. A. (7th), Sept. 24, 1947).

⁶ This section is intended merely as a digest of some recent decisions involving the Fair Labor Standards Act and the Portal-to-Portal Act. It is not to be construed and may not be relied upon as an interpretation of these acts by the Administrator of the Wage and Hour Division or any agency of the Department of Labor.

⁷ U. S. D. C. D. Md., Oct. 14, 1947.

example of limitation of jurisdiction of these courts by Congress in the past.

Good Faith Defense: Some light was thrown on the meaning of the "good faith" defenses provided in the Portal-to-Portal Act by a recent decision⁸ of a Federal district court in Iowa. The case involved a claim for overtime compensation of a person employed by a war contractor as chief receiving clerk, assistant storekeeper, and storekeeper. The employer claimed that he had regarded the employee exempt from the Fair Labor Standards Act as an executive, and had relied in good faith upon the fact that representatives of the Army Ordnance Department had checked his operations and had not objected to his classification of this employee as exempt. He therefore argued that the case falls within section 9 of the Portal-to-Portal Act, which exempts an employer from liability and punishment for acts or omissions committed before the effective date of the act "if he pleads and proves that the act or omission complained of was in good faith in conformity with and in reliance on any administrative regulation, order, ruling, approval, or interpretation of any agency of the United States * * *."

The court ruled, however, that this defense could not be used in this case. It pointed out that the Army representatives referred to by the employer as agents of the United States were concerned only with production and not with the problem of wages and hours. The court also relied upon the fact that there was no evidence to indicate that these officers of the Government had been apprised of the facts upon which they could determine whether or not the employee came within the exemption for executives under the Fair Labor Standards Act.

The employer also argued that in any event he is protected by section 11 of the Portal-to-Portal Act, which permits the courts to reduce the amount of liquidated damages or award no liquidated damages "if the employer shows to the satisfaction of the court that the act or omission giving rise to such action was in good faith and that he had reasonable grounds for believing that his act or omission was not a violation of the Fair Labor Standards Act * * *." The court rejected this argument. It pointed out that the employer knew that the employee performed nonexempt

⁸ *Reid v. Day & Zimmerman, Inc.* (U. S. D. C. S. D. Iowa, Sept. 25, 1947.)

work in excess of 20 percent of the hours worked by nonexempt employees under his direction, and also knew that the employee's recommendations as to hiring and firing were not given much weight. On such facts the court held that the employer did not have reasonable grounds for believing that the employee fell within the executive exemption, and therefore the employer was not protected by section 11 of the act.

Local Newspaper Exemption: Section 13 (a) (8) of the Fair Labor Standards Act exempts from the act "any employees employed in connection with the publication of any weekly or semiweekly newspaper with a circulation of less than 3,000 the major part of which circulation is within the county where printed or published."

A recent case⁹ in Arkansas involved an employer who operated a newspaper which came under this exemption. However, he also operated, as an adjunct to the publication of the newspaper, a job printing department. The greater portion of his revenue was received from this department, although the greater portion of his employees' working time was spent in publication of the newspaper.

The court held that these employees were exempt from the act. It reasoned that Congress was aware of the fact that most small newspapers can exist only by maintaining a job printing business, and that such operations are closely interwoven with the printing of the newspaper. It therefore concluded that Congress intended to include this combined operation in the exemption. The court viewed as immaterial in this case the fact that greater revenue was derived from the printing. It pointed out, however, that if upon all of the facts the printing phase of the business assumed an independent character, the exemption would not apply.

Veterans' Reemployment

Closed shop: A veteran, in a recent case,¹⁰ had, prior to his induction into the service, been employed as a truck driver by a quarrying company which did jobs on contract. At the time of his induction he was employed on a certain job, which by the time he was discharged from the service

had been completed. The company had contracted in the same town, for a new job, which, however, was subject to a closed-shop agreement. The veteran, who was not a member of the union and did not desire to become a member, claimed the right to be employed on this job. The employer refused, and offered to employ him on a job in another town which was otherwise like the position he left.

The court ruled in favor of the employer, on the ground that since the veteran was not a member of the union he was not "qualified" for employment on the job in question within the meaning of the Selective Training and Service Act. In addition the court reasoned that if the employer had fired a union man and employed the nonunion veteran, a strike would in all probability have resulted. It concluded that under such circumstances the employment of the veteran on that particular job would have been unreasonable.

Severance Pay: A company, in a recent case¹¹ in Washington, had a collective bargaining agreement which provided for the payment of severance pay upon dismissal. This pay was to consist of a certain number of weeks' pay, ranging from 2 to 28 weeks, depending upon the number of years of continuous service with the employer.

Two veterans who had been reinstated by this company following their discharge from the service were dismissed when the company ceased operations more than a year after their reinstatement. In the calculation of their severance pay the company excluded the period of time spent in the service. The veterans brought suit to have their severance pay calculated so as to include the time spent in military service.

The court held in favor of the veterans. It ruled that the portion of the Selective Training and Service Act dealing with "other benefits" must be literally construed to include severance pay; that contract provisions to the contrary must yield so as to entitle veterans to full severance pay, without deducting from the calculation thereof time spent in military service.

Discharge for Cause: A circuit court of appeals has upheld¹² a district court's ruling that a veteran discharged for failure to perform duties assigned

⁹Robinson v. North Arkansas Printing Co. (U. S. D. C. W. D. Ark., June 27, 1947).

¹⁰Bozar v. Central Pa. Quarry Co. (U. S. D. C. M. D. Pa., Oct. 2, 1947).

¹¹Randolph v. Seattle Star, Inc. (U. S. D. C. W. D. Wash., Sept. 19, 1947).

¹²Keserich v. Carnegie-Illinois Steel Co. (U. S. C. C. A. (7th) Oct. 11, 1947).

to him during a strike, was discharged "for cause" within the meaning of the provision of the Selective Training and Service Act which prohibits discharge of a veteran during the first year of his reinstatement, except for cause. The veteran was employed as a foreman, and was not a member of the striking union. He was asked, and agreed, to perform certain duties, not normally part of his position, regarding the protection of property during the strike. Against the instructions of his superior, he left the plant during the strike and was prevented from returning to his duties by the presence of pickets, as he had known before he left that he might be. For this he was discharged.

In ruling that this discharge was "for cause" the court stated, "The cause intended by the statute does not have to be a legal cause. It may be such cause as a fair-minded person may act upon, and where such action is not arbitrarily taken with a purpose or as an excuse to avoid the statute, it is cause within the meaning thereof."

Measure of Damages: In computing the damages a veteran is entitled to recover for wrongful discharge, the court will deduct the amount earned by the veteran in other employment during the interim. In a recent case,¹³ a veteran had been discharged unlawfully from a job which required that he work 40 hours a week, although the employer had the right to call upon him to work extra hours. The veteran immediately obtained a 40-hour-a-week job at the most lucrative employment available, and an additional part-time job for 9 hours a week. The court held that the amounts earned in the part-time job could not be deducted from the damages due the veteran from the employer who had unlawfully discharged him. It stated, "The duty which rests upon the discharged veteran to mitigate damages is fulfilled when he makes a bona fide effort to obtain employment upon substantially the same hourly basis as that which governed his employment with his former employer." The court rejected the argument that since the employer had the right to request the veteran to work more than 40 hours a week, he had not been discharged from a 40-hour-a-week job. It pointed out that while such

right existed, it had in fact seldom, if ever, been exercised.

Untimely Filing of Complaint: A veteran in a recent case¹⁴ was fired 6½ months after reinstatement. He did not commence action to recover for lost wages until 6 months after he was fired. The court ruled that this delay was unreasonable, amounted to acquiescence in the employer's conduct, and resulted in forfeiture by the veteran of his right to compensation for wages lost. It should be noted, however, that the court further held that the veteran was not entitled to recovery in any event, since the discharge was for cause.

Decisions of State Courts

California—"Hot Cargo Act" Unconstitutional: The so-called Hot Cargo Act of California has been declared unconstitutional by the California Supreme Court.¹⁵

This statute declares unlawful, and subjects to injunctions and damage suits: (1) Any combination or agreement resulting in a refusal by employees to handle goods or perform services for their employer because of a dispute between some other employer and his employees or a union; (2) any combination or agreement resulting in a refusal by employers to handle goods or perform services for another employer because of any agreement between such other employer and his employees or a union; (3) any combination or agreement to cease performing or to cause any employee to cease performing any services for any employer, or to cause any injury or loss to such employer or to his employees in order to compel such employer to cease doing business with any other employer, because of a dispute between the latter and his employees or a union; and (4) any combination or agreement to cease performing any services for another employer or to cause injury or loss to such employer or his employees in order to compel such other employer to refrain from doing business with any other employer because of an agreement between the latter and his employees or a union. The statute declares unlawful "any act, combination, or agreement which directly or indirectly causes, induces, or compels a violation of any of the provisions of

¹³ *MacKnight v. Twin Cities Broadcasting Co.* (U. S. D. C. D. Minn. Oct. 18, 1947).

¹⁴ *Azzeroni v. Coon Co.* (U. S. C. C. W. D. N. Y. Sept. 15, 1947).

¹⁵ *In re Blaney* (Cal. Sup. Ct. Oct. 3, 1947).

this chapter, or inflicts any loss, injury or damage on anyone because of his refusal to violate any of the provisions of this chapter."

The case before the court involved an injunction against a union official. He had agreed with other members of his union to cause employees of firms dealing with an employer with whom the union was engaged in a dispute to cease performing services, and to cause firms to cease doing business with him, by threatening to picket and by picketing such firms. The lower court has enjoined these activities pursuant to the "Hot Cargo Act," and the defendant had been imprisoned for contempt in violating this injunction.

The supreme court held that this statute and the injunction issued pursuant to it violated the free speech provisions of the Federal and State constitutions. The court recognized that under existing decisions of the courts there are limitations on the extent to which a labor organization is protected by these provisions in its efforts to publicize the facts in a labor dispute. It concluded, however, that this statute was unconstitutional on its face because it was so sweeping in its terms as to permit "the prior censorship of matters undeniably protected by the constitutional guarantee of free speech." Said the court, "Under that provision should employees or a union merely agree to give publicity to their disputes with their employers by radio or newspaper, if that agreement and publicity results in persuading the employees of some other employer to withhold services from their employer, an injunction will lie. In other words their freedom to publicize their labor dispute or even to agree to do so is penalized."

Tennessee—Anti-Closed-Shop Law Constitutional: A lower court in Tennessee has upheld¹⁶ as constitutional the so-called Tennessee Open Shop Law, which prohibits agreements making union

* *Mascari v. International Teamsters Union* (Tenn. Ch. Ct. Shelby Cty., Sept. 22, 1947).

membership a condition of employment. The court rejected the argument that the law violates the due process clauses of the Federal and State constitutions by unreasonably and arbitrarily restricting the right of private contract. Distinguishing this case from those which have held invalid laws restricting entrance to certain professions, the court stated that this law "operates to make the field of employment open to all."

Pennsylvania—Stranger Picketing: Picketing of an establishment by members of a union to which the employees in that establishment do not belong is not necessarily enjoinable under Pennsylvania law.

Such was the holding in a recent case¹⁷ decided by a lower Pennsylvania court. The case involved picketing by a rival union of an employer whose employees had organized a company union and had signed a collective bargaining agreement. The court noted that recent amendments to the Pennsylvania Anti-Injunction Act gave the Pennsylvania courts authority to issue injunctions in labor disputes if the conduct enjoined (1) tends to procure the breach of a valid collective bargaining contract, or (2) is calculated to coerce an employer to compel his employees to join another labor organization, or (3) tends to coerce an employer to violate the State or Federal labor relations laws. The court pointed out, however, that while it had authority to issue injunctions in such cases it was not compelled to do so, and ought to do so only if there is a compelling necessity. Moreover, it ruled that in this case the picketing was conducted not for any of the unlawful purposes set forth in the statute, but for the purpose of advising the public that the employer did not have a contract with the picketing union. The court concluded that such picketing, when conducted peacefully, is protected by the free speech provisions of the Constitution.

¹⁷ *Twin City Grill Co. v. Local Joint Executive Board of Scranton* (Pa. Ct. Common Pleas, Lackawanna City., Aug. 28, 1947).

Publications of Labor Interest

Special Reviews

The trade union as a wage-fixing institution. By Arthur M. Ross. (*In American Economic Review*, Evanston, Ill., September 1947, pp. 566-588. \$1.25.)

It is remarkable that, although every day's newspapers carry clear evidence as to the political and institutional characteristics of trade-unions, many economists in analyzing union behavior have treated a union as if it were a sort of collective economic man whose actions were the sum of the calculated economic decisions of its members. In this analysis, Dr. Ross of the University of California has examined the behavior of unions in action. A union—like a State or a corporation—is not merely a collection of individuals banded together for collective action. It is a political institution, the author points out, motivated not only by those purposes that are peculiar to its function—attainment of economic well-being for its members—but also by those which it shares in common with all vital institutions, namely, its own status, growth, and survival. It must, indeed, take full account of its functional purposes, or else it cannot survive except by coercion; nevertheless, the institutional objectives are always present and may, in case of conflict, take precedence over the more formal functional purposes.

When unions are looked at in this light, many aspects of union behavior which are unintelligible from a strictly economic—or moral—point of view, can be realistically explained and understood. This is particularly true of union wage policy and wage determination. "Trade union wage policy is a function of the leadership," in which union leaders "must harmonize a variety of pressures" emanating from "relationships with the rank and file, with the employers, with other organizational levels of the union, with the rest of the labor movement, and with the government." Union leaders, in the bargaining process, try "to reconcile the pressures in such a manner as to contribute most to the survival and growth of the organization."

Rank and file pressures are particularly significant, since it is from these that the union, as an institution, derives

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

its strength, and the leadership its position and authority. The membership is ordinarily heterogeneous, and almost invariably remote from the bargaining process. It is dependent upon the officials for guidance as to what is "equitable, obtainable and acceptable," and for the exercise of "indispensable tactical wisdom." Democratic procedures within the union, moreover, do not lessen this dependence; as often as not, such procedures provide the leadership a means of using the rank and file as a positive force in achieving both the economic and institutional objectives of the union.

Industrial and Labor Relations Review, Vol. I, No. 1, October 1947. Edited by Milton R. Konvitz. Ithaca, N. Y., Cornell University, New York State School of Industrial and Labor Relations. 174 pp. \$1 a copy, \$3 a year.

The appearance of this new quarterly at this time is indicative of the juncture we have reached in the United States in the development of labor-management relations, of labor legislation, and of general public interest in that broadening field known as labor economics. Even though there were no significant trends to be noted in its advent, the incursion of a newcomer into a segment of the territory for years exclusively the province of the Monthly Labor Review could not pass without mention in this department of the Review.

Although there is no formal statement of editorial policy, the catholic range of contents in this first issue and the brief prefatory note by Edmund E. Day, president of Cornell University, indicate both ambition and breadth. Diversely there appear both Edward L. Bernays, the publicist, writing on An Educational Program for Unions, and Alvin H. Hansen, professor of political economy at Harvard, writing on Needed: A Cycle Policy. Dr. Day feels that "unbiased investigation, objective analysis, and calm discussion by responsible authorities serve an especially useful purpose when applied to controversial problems of great importance to society." The establishment of the publication is "a logical extension of the function which higher education is assuming in the area of labor-management relations." This function is elaborated in the leading article, by Edwin E. Witte, chairman, economics department, University of Wisconsin, on The University and Labor Education: "The most significant developments of the last half dozen years in university labor education can be discussed under the increase in the number of students, * * * the development of work in labor in * * * departments besides economics; the establishment * * * of labor relations institutes; and the increased attention devoted to workers' education."

Among other articles included are: Labor and American Foreign Policy, by David A. Morse, undersecretary of labor; Labor's Interest: A Management View, by D. C. Prince, vice president, General Electric Co.; Unions, Government, and Politics, by Jack Barbash, of the United States Bureau of Labor Statistics; and Measuring the Fatigue Factor, by William Gomberg, director, management engineering department, International Ladies' Garment Workers' Union (AFL).

Conciliation and Arbitration

Compulsory arbitration. By Buel W. Patch. Washington (1205 19th Street NW.), Editorial Research Reports, 1947. 21 pp. (Vol. II, 1947, No. 7.) \$1.

This pamphlet and the one listed immediately following present pro and con arguments on compulsory arbitration of labor disputes, review experience with this method in several foreign countries, and summarize measures suggested or adopted for compulsory arbitration in the United States.

Compulsory arbitration: Opposed—the case against adoption. Washington, Chamber of Commerce of the United States, Department of Manufacture, 1947. 28 pp., bibliography.

Selected bibliography on compulsory arbitration of labor disputes. Washington, U. S. Bureau of Labor Statistics, September 1947. 7 pp.; processed. Free.

State authorities engaged in mediation and conciliation activities. Washington, U. S. Department of Labor, Division of Labor Standards, 1947. 32 pp.; processed. (Bull. No. 91.) Free.

The United States Conciliation Service. By Max M. Kampelman. (In Minnesota Law Review, Minneapolis, June 1947, pp. 680-698, bibliography. \$1.)

Short account of conciliation activity in the U. S. Department of Labor and of the internal organization of the Conciliation Service. The author examines the war record of the Service and concludes that it learned much from experience, and that, although there was room for improvement, its role was vital.

Cooperative Movement

Directory of consumers' cooperatives in the United States. Washington, U. S. Bureau of Labor Statistics, 1947. 119 pp. (Bull. No. 750, revised June 1947.) 30 cents, Superintendent of Documents, Washington.

Reprint of directory first published in 1943, with an addendum of 25 pages listing cooperatives formed between January 1943 and June 1947.

1946 annual report of operations, Federal credit unions. Washington, Federal Deposit Insurance Corporation, 1947. 21 pp., charts.

Contains detailed statistics of credit unions organized under the Federal Credit Union Act. Figures show membership, capital, loans made and outstanding, expenses, earnings, and dividends paid. Totals from this report were included in the Bureau of Labor Statistics' report of operations of credit unions (both State chartered and federally chartered), published in the November 1947 issue of the Monthly Labor Review.

Farmers' cooperative associations under the Fair Labor Standards Act of 1938 (Title 29, Ch. V, Code of Federal regulations, Part 780, Subpart C). Washington, U. S. Department of Labor, Wage and Hour Division, 1947. 3 pp.; processed. Free.

Summary of cases relating to farmers' cooperative associations.

By Lyman S. Hulbert. Washington, U. S. Department of Agriculture, Farm Credit Administration, Cooperative Research and Service Division, September 1947. 17 pp.; processed. (Summary No. 35.)

Summarizes recent important court decisions affecting consumers' as well as farmers' cooperatives.

Taxation of cooperatives. By W. L. Bradley. (In Harvard Business Review, Vol. XXV, No. 4A, Boston, autumn 1947, pp. 576-586. \$1.50.)

The author points out that much of the recent controversy regarding the tax status of cooperatives has arisen from failure to define the issues. Both tax exemption and tax minimization are involved, but only as regards the Federal corporate income tax. Tax minimization has to do with the "accomplishment of price adjustments to cost of doing business through the medium of patronage refunds"—a procedure followed not only by cooperatives but by "almost every segment of commercial business." Rulings that sums returned in patronage refunds are not taxable income as regards the corporation that returns them have the effect of shifting the tax liability from the organization to the patron. With one exception, cooperatives pay all State and Federal taxes paid by other commercial businesses. The sole exception is the exemption from Federal taxes on reserves, and on issuance and transfer of capital stock, extended to agricultural cooperatives that comply with certain conditions.

El movimiento cooperativo en Colombia. By Fernando Chaves Núñez. Washington, Pan American Union, Division of Labor and Social Information, 1947. 39 pp., illus.; processed. 50 cents.

Gives a brief history of the cooperative movement in Colombia, and describes the legal basis for cooperatives in that country, the present condition of the movement, the central and governmental agencies concerned with it, and developments in cooperative education. Statistics are given for the various types of cooperatives.

HSB: Cooperative housing. [Stockholm, Hyresgästernas Sparkasse- och Byggnadsförening i Stockholm, 1947?] 35 pp., plans, illus.

Tells the story of the Tenants' Savings and Building Society of Stockholm (HSB—Hyresgästernas Sparkasse- och Byggnadsförening i Stockholm). During a period of approximately 20 years, the report states, this cooperative association built housing accommodations for over 40,000 families. In 1944 the dwelling units erected by it accounted for 13.1 percent of the total built in Sweden. Its membership at the end of 1945 numbered 37,000.

Economic and Social Problems

To secure these rights. The report of the President's Committee on Civil Rights. Washington, Government Printing Office, 1947. 178 pp., charts, illus. \$1.

Our economic problem. By P. A. Wadia and K. T. Merchant. Bombay, New Book Co., Ltd., 1946. 588 pp. 6 rupees 8 annas.

Deals with problems connected with production, distribution, and consumption in India. Several chapters are devoted to labor conditions.

Forced labor in Soviet Russia. By David J. Dallin and Boris I. Nicolaevsky. New Haven, Yale University Press, 1947. 331 pp., annotated bibliography, maps. \$3.75.

This book presents what appears to be a well-documented description of the harsh aspects of the Soviet system of forced labor as applied to criminals and to persons condemned by the government for political or other reasons. Discussed also are the wartime forced transfers of certain nationality groups and members of such groups from the western to the eastern half of the Soviet Union. The second half of the book is devoted to a historical account of "the origin and growth of forced labor in Russia." The authors maintain that "a hierarchical society of several distinct classes and a multitude of intermediate castes" has emerged in the Soviet Union; and that "the entire structure, however, rests on a new foundation: the huge class of forced laborers, a segment of mankind degraded to the level of beasts of burden."

Employment

Recent occupational trends: Wartime and postwar trends compared; an appraisal of the permanence of recent movements. By Harold Wool and Lester M. Pearlman. Washington, U. S. Bureau of Labor Statistics, 1947. 9 pp., chart. (Serial No. R. 1902; reprinted from *Monthly Labor Review*, August 1947.) Free.

Factors influencing trends in employment of the aged. By S. J. Mushkin and Alan Berman. (In *Social Security Bulletin*, Federal Security Agency, Social Security Administration, Washington, August 1947, pp. 18-23, chart. 20 cents, Superintendent of Documents, Washington.)

Annual review of employment and pay rolls in Canada, 1946. Ottawa, Department of Trade and Commerce, Dominion Bureau of Statistics, 1947. 100 pp., charts; processed.

Housing

Homes can be built now—through community action. Washington, Office of the Housing Expediter, 1947. 44 pp., map; processed. (Community action bull. No. 9.) Free.

Gives 75 examples of voluntary cooperation among private citizens, in 63 communities, for the purpose of building homes for veterans. Methods of individual cities are described.

Facts about public housing in Chicago. Chicago, Housing Authority, 1947. 31 pp., charts.

Description in text and charts of the 10 low-rent developments operated by the Chicago Housing Authority. Subjects covered include type and size of units, costs, and economic status of tenants.

A survey of housing needs. Seattle, Wash., Housing Authority, 1946. 19 pp., charts; processed.

Results of a survey made by the Seattle Housing Author-

ity to ascertain postwar housing needs among 5,352 families on 10 war housing projects.

Trend of residential building in metropolitan Washington, 1920-47. Washington, U. S. Bureau of Labor Statistics, 1947. 24 pp.; processed.

Industrial Hygiene

Control of lead exposure in storage battery manufacture. By Grant S. Winn and Carroll Shroyer. (In *Journal of Industrial Hygiene and Toxicology*, Baltimore, September 1947, pp. 351-356, charts. \$1.25.)

Experience of a plant in reducing reported cases of lead intoxication of workers to four within a decade, accomplished primarily by reduction of air contamination to a minimum and early detection of abnormal absorption of lead.

Radioactive luminous paint. By Richard L. Shorkey. (In *National Safety News*, Chicago, September 1947, pp. 28, 29, 99, et seq., bibliography. 60 cents.)

Findings in six cases of radium ingestion by workers engaged at a naval air station in the assembling and overhauling of instruments having dials painted with radioactive paint, together with protective regulations adopted. Stringent controls in dial painting and in instrument shops are recommended.

Occupational diseases of the skin. By Louis Schwartz, M.D., Louis Tulipan, M.D., Samuel M. Peck, M.D. Philadelphia, Lea & Febiger, 1947. 964 pp., bibliographies, illus. 2d ed., rev. \$12.50.

Describes sources of industrial and other contact dermatoses and methods for their prevention and treatment.

Outline of occupational disease control through engineering. Washington, U. S. Department of Labor, Division of Labor Standards, 1947. 46 pp. (Bull. No. 83.) Free.

Printed edition, with minor changes, of a report previously available only in mimeographed form.

Review of 10,834 preplacement physical examinations in wartime industry. By Jean Spencer Felton, M.D. (In *Occupational Medicine*, Chicago, March 1947, pp. 261-287. 75 cents.)

Statistical appraisal of employability of a group of West Coast work applicants, under a Federal selective placement program; 98.8 percent were accepted, 1,424 impaired workers being placed in restricted jobs. Findings for women, veterans, and racial groups are included.

Sickness absenteeism among male and female industrial workers, 1937-46, inclusive. By W. M. Gafafer. (In *Public Health Reports*, Federal Security Agency, U. S. Public Health Service, Washington, October 24, 1947, pp. 1538-1541. 10 cents, Superintendent of Documents, Washington.)

The suppression of dust and other technical problems of the Australian coal mining industry. By T. David Jones. [Melbourne, Council for Scientific and Industrial Research?], 1947. 12 pp.; processed.

Industrial Relations

City plans for promoting industrial peace. By Roy H. Owsley. Chicago, American Municipal Association, 1947. 32 pp.; processed. (Report No. 162.) \$1.50.

Based largely on replies to a questionnaire circulated to all cities having municipally sponsored labor-management committees or other similar industrial relations agencies. Contains a brief survey of the plans in several cities and compares in some detail those of Boston, Toledo, Louisville, and New York City.

Work stoppages caused by labor-management disputes in 1946.

Washington, U. S. Bureau of Labor Statistics, 1947. 47 pp., charts. (Bull. No. 918; reprinted from Monthly Labor Review, May 1947, with additional data.) 15 cents, Superintendent of Documents, Washington.

The industrial relations five-foot shelf. By Herbert G. Heneman, Jr. Minneapolis, University of Minnesota, Industrial Relations Center, September 1947. 18 pp. (Bull. No. 5.)

Annotated bibliography of selected books and periodicals.

A reading list on business administration. Hanover, N. H., Dartmouth College, Amos Tuck School of Business Administration, 1947. 59 pp. Rev. ed. 50 cents.

Seven pages are devoted to references on industrial relations and personnel management.

Framework of collective bargaining. (In Planning, a broadsheet issued by P E P (Political and Economic Planning), London, October 3, 1947, pp. 101-119. Reprints are available from New Republic, New York, at 25 cents each.)

Surveys the development of British negotiating machinery, covering about 90 percent of insured workers, under the following headings: Evolution of collective agreements, voluntary negotiating machinery, Whitley system of joint industrial councils, and statutory wage-fixing machinery. Special attention is given to voluntary methods used in six major industries.

Strikes and their changing economic context. By K. C. G. Knowles. (In Bulletin of Oxford University Institute of Statistics, Oxford, September 1947, pp. 285-306. 2s.6d.)

Emphasizes the decline in wage strikes and the proportionate increase in frictional strikes in Great Britain during the period 1911-14 to 1945-47. Tables show incidence of strikes, by industry, in different periods; strikes in coal mining predominated throughout. The effect of strikes in the present economic crisis is discussed.

Labor and Social Legislation

State labor legislation in 1947. Washington, U. S. Bureau of Labor Statistics, 1947. 8 pp. (Serial No. R. 1903; reprinted from Monthly Labor Review, September 1947.) Free.

Analysis of the Taft-Hartley Act. Washington, Congress of Industrial Organizations, 1947. 51 pp. (Pamphlet No. 153.) 15 cents.

Describes the scope of the Labor Management Relations Act and analyzes its major provisions.

Employee rights under the Labor Management Act, 1947—information for employers. Washington, Chamber of Commerce of the United States, Department of Manufacture, 1947. 4 pp.

A summary designed to highlight those provisions of the Labor Management Relations Act which affect the employee as an individual and as a union member.

Legislation affecting household employees (as of October 1, 1947). Washington, U. S. Department of Labor, Women's Bureau, 1947. 5 pp.; processed. Free.

*Labor code, Volume I: The Bombay Industrial Relations Act (Act No. XI of 1947) * * *.* By Champaklal C. Bhatt and Ganpatishanker P. Vyas. Ahmedabad, Chandrakant Chimanlal Vora, 1947. 196 pp. 14 rupees.

Labor legislation in Canada in 1946. Ottawa, Department of Labor, 1947. 154 pp.

An index of reports on labor legislation in Canada, 1937-46, is appended.

Regulation of labor life in Turkey. Ankara, Ministry of Labor, 1947. 24 pp. In English and French.

A statement of the laws of Uruguay in matters affecting business in its various aspects and activities. Washington, Inter-American Development Commission, 1947. 103 pp.; processed. \$7.50.

Outlines labor and social legislation and laws concerning immigration and naturalization, in addition to those on business matters. Similar volumes have been published for Argentina, Bolivia, Chile, Cuba, Dominican Republic, Haiti, Honduras, and Peru.

Labor Organizations and Their Activities

Report of the executive council of the American Federation of Labor to the 66th convention, San Francisco, Calif., October 6, 1947. Washington, American Federation of Labor, 1947. 186 pp.

A brief résumé of action taken at the October 1947 conventions of the AFL and CIO was published in the Monthly Labor Review for November 1947. It is being made available in separate form as Bureau of Labor Statistics Serial No. R. 1912.

Report of president Philip Murray to the ninth constitutional convention of the Congress of Industrial Organizations, Boston, Mass., October 18-17, 1947. [Washington, Congress of Industrial Organizations, 1947.] 75 pp.

Union welfare funds. By Kendrick Lee. Washington (1205-19th St. NW.), Editorial Research Reports, 1947. (Vol. I, 1947, No. 18.) 14 pp. \$1.

Brief statement of the position of labor and of Congress concerning union welfare funds, antedating the Labor Management Relations Act of 1947.

Trade unions in a Labor Britain. By J. B. Jefferys. London, Fabian Publications, Ltd., and Victor Gollancz, Ltd., 1947. 12 pp. (Discussion series, No. 2.) 6d.

Discusses responsibilities of the British trade-union movement growing out of its large share in the Labor Party victory at the polls in 1945. Suggests new policy approaches re manpower, productivity, wages, strikes, and arbitration, with special attention to the changing functions of the unions.

Statistics of the trade unions in the Netherlands on January 1, 1946. Utrecht, Netherlands Central Bureau of Statistics, 1947. 40 pp., charts. In Dutch.

This annual review of trade-union organization and membership, the first to appear since 1941, resembles earlier publications in this series. It includes an account of the chief events in the Netherlands labor movement, May 1940-December 1946; a chart showing total membership, 1914-46 (except for 1942-45); information concerning the four central federations and their affiliates, by industry and place; and names and addresses of unions.

Fiftieth annual report of the Scottish Trades Union Congress, 1947, including report of organization of women committee and report of youth advisory council. Glasgow, Scottish Trades Union Congress, 1947. 152 pp. 1s. net.

Labor Requirements

Labor requirements: Hardwood flooring production. Washington, U. S. Bureau of Labor Statistics, 1947. 5 pp. (Serial No. R. 1899; reprinted from Monthly Labor Review, July 1947.) Free.

Labor requirements to produce home insulation. Washington, U. S. Bureau of Labor Statistics, 1947. 19 pp., illus. (Bull. No. 919.) 10 cents, Superintendent of Documents, Washington.

Negro in Industry

Negro business and business education—their present and prospective development. By Joseph A. Pierce. New York, Harper & Bros., 1947. 338 pp. (Atlanta University publications, No. 24.) \$3.50.

Part I is a comprehensive statistical analysis of employment of Negroes in business enterprise, including data on location of business, type of ownership, patronage, and financial operations. Information on the age, sex, education, and experience of both employers and employees is also given. Separate chapters are devoted to activities in which the Negro has played a vital part, e. g., life insurance companies, banking and lending institutions, and consumers' cooperatives. Part II describes the status of business education in Negro schools, and makes recommendations on the development of such education in the light of the findings in Part I.

Opportunities for Negro women in the medical and other health services. Washington, U. S. Department of Labor, Women's Bureau, 1947. 8 pp.; processed. Free.

Pensions

Recent trends in employee pension and welfare programs. (In Journal of Commerce and Commercial, second section, New York, June 16, 1947; 32 pp.)

Series of articles by various authors. Practice of the International Ladies' Garment Workers' Union as to welfare and health funds is briefly cited in an article on the union viewpoint on welfare funds.

Bank pension plans. New York, Bankers Trust Co., 1947. 67 pp.

Deals with pension practices pertaining to approximately two-thirds of the bank employees in the United States. Summarizes 226 formal pension plans of banks having deposits of \$22.5 million to over \$1 billion, and also 9 State bankers' association plans, and 1 program covering 12 Federal Reserve banks.

A national retirement program for employees of hospitals. New York, American Hospital Association and National Health and Welfare Retirement Association, Inc., [1947?]. 16 pp.

Outlines group pension plans sponsored by the American Hospital Association for nonprofit hospitals (now excluded from the Federal social security program). Participation is obligatory for all new employees of a hospital which has accepted a plan, both employers and employees contribute, and benefits are transferable between hospitals.

Third annual statement of Board of Trustees of State Employees' Retirement System of Illinois, June 30, 1946. Springfield, [1946?]. 64 pp.

Price Control

The beginnings of OPA: Part I, The Price Control Act of 1942; Part II, The Price Stabilization Division; Part III, Selective price control. Washington, 1947. 246 pp., charts. (Historical reports on war administration: General publication No. 1, U. S. Office of Temporary Controls, Office of Price Administration.) 50 cents, Superintendent of Documents, Washington.

Wartime apparel price control. By Wilfred Carsel. Washington, 1947. 201 pp., bibliography. (Historical reports on war administration: General publication No. 3, U. S. Office of Temporary Controls, Office of Price Administration.) 40 cents, Superintendent of Documents, Washington.

The Virginia Emergency Fair Rent Act of 1947. By John W. Willis. (In Virginia Law Review, Charlottesville, July 1947, pp. 395-444. \$1.)

Analysis of provisions of Virginia rent-control law of 1947, noting its strong and its weak points.

Social Security (General)

[Federal] *social security legislation in 1947.* (In Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, September 1947, pp. 13-15. 20 cents, Superintendent of Documents, Washington.)

Extent of insurance and pensions in industrial employment. Washington, U. S. Bureau of Labor Statistics, 1947. 4 pp. (Serial No. R. 1898; reprinted from Monthly Labor Review, July 1947.) Free.

Experience of 123 companies with employee benefit programs. Chicago, Dartnell Corporation, [1947]. 2 vols., variously paged, bibliography. (Report No. 555.) Discusses trends and types of programs, especially group insurance for sickness and related benefits, and pensions and profit sharing. Examples of company booklets describing benefit plans are included.

Social security in Latin America, 1945-47. By Carl H. Farman. (In Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, September 1947, pp. 18-26. 20 cents, Superintendent of Documents, Washington.)

Social Work

How to interpret social welfare: A study course in public relations. By Helen Cody Baker and Mary Swain Routzahn. New York, Russell Sage Foundation, 1947. 141 pp., bibliography, illus. \$2.50.

Principles and practice of social work. By Helen I. Clarke. New York, D. Appleton-Century Co., Inc., 1947. 450 pp., bibliographies. \$3.50.

Report on the employment and training of social workers [in Great Britain]. By Eileen L. Younghusband. Edinburgh, T. and A. Constable, Ltd., printers, 1947. 180 pp.

Veterans' Affairs

Veterans' adjustment to civilian life—a resurvey, November 1946. Washington, U. S. Bureau of Labor Statistics, 1947. 14 pp.; processed. (Work and wage experience studies, Report No. 7.) Free.

Laws of Illinois affecting veterans of all wars and kindred organizations. Compiled by Edward J. Barrett, Secretary of State. [Springfield?], 1947. 199 pp.

Preference in employment and various forms of compensation, including social benefits, are among the subjects covered.

Interim report on emergency housing for veterans [in New Jersey]. [Trenton?], New Jersey State Department of Economic Development, Public Housing and Development Authority, 1947. 8 pp. and pasters, illus.; processed.

First biennial report of the Director of Veterans' Affairs to the Governor of Oregon, covering the period June 15, 1945, to September 30, 1946. Salem, 1946. 14 pp.

Describes the benefit provisions made by the State of Oregon for veterans and gives an accounting of operations in terms of number of persons aided and financial statistics.

Wages and Hours of Labor

Union wages and hours in the building trades, July 1, 1946. Washington, U. S. Bureau of Labor Statistics, 1947. 73 pp., chart. (Bull. No. 910; reprinted from Monthly Labor Review, January 1947, with additional data.) 20 cents, Superintendent of Documents, Washington.

Wages and wage rates of hired farm workers, United States and major regions, July 1946. By Paul P. Wallraabenstein. Washington, U. S. Department of Agriculture, Bureau of Agricultural Economics, 1947. 53 pp.; processed. (Surveys of wages and wage rates in agriculture, Report No. 20.)

Wages of foundry workers, October 1946. Washington, U. S. Bureau of Labor Statistics, 1947. 4 pp. (Serial No. R. 1901; reprinted from Monthly Labor Review, August 1947.) Free.

Wage rates, hours, and working conditions in the lumber and lumber products industries, [Canada], 1946. (In Labor Gazette, Department of Labor, Ottawa, September 1947, pp. 1374-1387.)

Wages and conditions, American Newspaper Guild contracts, June 10, 1947. New York, American Newspaper Guild, Research Department, 1947. 233 pp.; processed.

Salary schedules in colleges for teacher education, 1945-46. Washington, National Education Association, Research Division, 1946. 35 pp. 15 cents.

Women in Industry

Jobs for women over thirty-five. By Julietta K. Arthur. New York, Prentice-Hall, Inc., 1947. 253 pp., bibliographies. \$3.50.

The book is divided into two parts, the first dealing with jobs in which age is a vantage point, and the second, with jobs in which age is not a handicap.

Safeguarding women at work. Toronto, Industrial Accident Prevention Associations, [1946?]. 22 pp., illus. (Pamphlet No. 55A.)

Employment of women in France. (In International Labor Review, Geneva, June 1947, pp. 549-555. 50 cents. Distributed in United States by Washington Branch of I. L. O.)

Reviews the volume and distribution of female labor, the position regarding women's wages, and official proposals to encourage recruitment of women workers in France.

Women workers in Peru. Washington, U. S. Department of Labor, Women's Bureau, 1947. 41 pp., illus. (Bull. No. 213.) 15 cents, Superintendent of Documents, Washington.

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A: Employment and Pay Rolls

TABLE A-1: Estimated Total Labor Force Classified by Employment Status, Hours Worked, and Sex

Labor force	Estimated number of persons 14 years of age and over ¹ (in thousands)												
	1947										1946		
	Octo- ber ²	Septem- ber ²	August ²	July ²	June ²	May	April	March	Febru- ary	Janu- ary	Decem- ber	Novem- ber	Octo- ber
Total, both sexes													
Total labor force ³	62,219	62,130	*63,017	64,035	64,007	61,760	60,650	59,960	59,630	59,510	60,320	60,980	61,160
Civilian labor force	60,892	60,784	*61,665	62,664	62,609	60,290	59,120	58,390	58,010	57,790	58,430	58,970	58,990
Unemployment	1,687	1,912	*2,096	2,584	2,555	1,960	2,420	2,330	2,490	2,400	2,120	1,930	1,960
Employment	59,204	58,872	*59,569	60,079	60,055	58,330	56,700	56,060	55,520	55,390	56,310	57,040	57,030
Nonagricultural	50,583	50,145	*50,594	50,013	49,678	49,370	48,840	48,820	48,600	48,890	49,100	49,140	48,410
Worked 35 hours or more	43,102	42,796	*41,068	39,602	41,747	41,330	40,120	40,680	40,750	41,500	42,120	41,800	41,400
Worked 15-34 hours	4,534	3,988	*4,574	4,630	4,532	4,780	4,820	4,880	4,690	4,280	4,290	4,730	4,340
Worked 1-14 hours ⁴	1,391	1,312	*1,224	1,150	1,243	1,550	1,570	1,500	1,440	1,400	1,350	1,270	1,260
With a job but not at work ⁴	1,556	2,050	*3,726	4,631	2,156	1,710	2,330	1,760	1,720	1,710	1,340	1,340	1,410
Agricultural	8,622	8,727	*8,975	10,066	10,377	8,960	7,860	7,240	6,920	6,500	7,210	7,900	8,620
Worked 35 hours or more	6,867	7,207	*6,734	8,067	8,326	6,940	5,520	4,750	4,320	4,040	5,150	6,020	6,820
Worked 15-34 hours	1,383	1,077	*1,087	1,653	1,700	1,660	1,770	1,790	1,890	1,700	1,450	1,560	1,510
Worked 1-14 hours ⁴	204	165	*193	171	187	210	260	300	280	300	320	160	200
With a job but not at work ⁴	167	187	*362	174	165	150	310	400	430	460	290	160	90
Males													
Total labor force ³	44,754	44,881	*45,874	46,213	45,839	44,620	44,310	43,990	43,700	43,560	43,860	43,940	43,970
Civilian labor force	43,443	43,551	*44,540	44,861	44,460	43,170	42,800	42,440	42,100	41,860	41,990	41,950	41,820
Unemployment	1,183	1,303	*1,518	1,789	1,707	1,420	1,900	1,850	2,010	1,950	1,600	1,520	1,550
Employment	42,260	42,188	*43,022	43,071	42,753	41,750	40,900	40,590	40,090	39,910	40,300	40,430	40,270
Nonagricultural	35,340	35,202	*35,452	34,937	34,729	34,340	33,970	34,030	33,830	34,060	34,010	34,050	33,500
Worked 35 hours or more	31,476	31,232	*30,302	29,041	30,639	30,160	29,260	29,400	29,280	29,910	30,290	30,140	29,750
Worked 15-34 hours	2,212	2,094	*2,506	2,555	2,333	2,350	2,530	2,680	2,540	2,200	2,120	2,390	2,200
Worked 1-14 hours ⁴	630	622	*487	446	469	600	730	660	670	660	600	590	560
With a job but not at work ⁴	1,022	1,355	*2,156	2,896	1,288	1,140	1,450	1,290	1,340	1,200	1,000	930	990
Agricultural	6,920	6,955	*7,570	8,134	8,024	7,410	6,930	6,560	6,260	5,850	6,290	6,380	6,770
Worked 35 hours or more	5,913	6,175	*6,191	7,130	7,187	6,400	5,260	4,600	4,190	3,850	4,860	5,360	5,810
Worked 15-34 hours	736	523	*937	775	588	770	1,230	1,380	1,460	1,330	950	780	770
Worked 1-14 hours ⁴	128	87	*141	98	101	130	190	230	230	250	220	90	120
With a job but not at work ⁴	142	169	*303	130	148	110	250	350	380	420	260	150	70
Females													
Total labor force ³	17,465	17,249	*17,143	17,822	18,168	17,140	16,340	15,970	15,930	15,950	16,460	17,040	17,190
Civilian labor force	17,449	17,233	*17,125	17,803	18,149	17,120	16,320	15,950	15,910	15,930	16,440	17,020	17,170
Unemployment	504	519	*578	795	848	540	520	480	480	450	430	410	410
Employment	16,944	16,714	*16,547	17,008	17,302	16,580	15,800	15,470	15,430	15,480	16,010	16,610	16,760
Nonagricultural	15,243	14,943	*15,142	15,076	14,949	15,030	14,870	14,790	14,770	14,830	15,090	15,090	14,910
Worked 35 hours or more	11,626	11,564	*10,766	10,561	11,108	11,170	10,860	11,280	11,470	11,590	11,830	11,660	11,650
Worked 15-34 hours	2,322	1,894	*2,068	2,075	2,199	2,430	2,290	2,200	2,150	2,080	2,170	2,340	2,140
Worked 1-14 hours ⁴	761	700	*137	704	774	860	840	770	740	750	680	700	700
With a job but not at work ⁴	534	695	*1,570	1,736	868	570	880	470	380	420	340	410	420
Agricultural	1,702	1,772	*1,405	1,932	2,353	1,550	930	680	660	650	920	1,520	1,850
Worked 35 hours or more	954	1,122	*843	937	1,139	540	260	150	130	190	260	660	1,010
Worked 15-34 hours	647	554	*750	878	1,112	890	540	410	430	370	500	780	740
Worked 1-14 hours ⁴	76	78	*52	73	86	80	70	70	50	50	100	70	80
With a job but not at work ⁴	25	18	*59	44	17	40	60	50	50	40	30	10	20

¹ Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution. All data exclude persons in institutions.

² Beginning in June 1947, the estimates are presented rounded to the nearest thousand, and, for convenience, figures under 100,000 are no longer replaced with asterisks. These changes from previous practice do not reflect an improvement in reliability of the data but are made in order to achieve consistency with other census releases on related subjects. Because of rounding the individual figures no longer add to group totals.

³ Total labor force consists of the civilian labor force and the armed forces.

⁴ Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

⁵ Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute, or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

⁶ Revised.

Source: U. S. Department of Commerce, Bureau of the Census.

TABLE A-2: Estimated Number of Wage and Salary Workers¹ in Nonagricultural Establishments, by Industry Division

[In thousands]

Industry division	1947											1946			Annual average	
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	1939	
Total estimated employment.....	43,298	43,033	42,600	42,201	42,363	41,919	41,824	42,043	41,849	41,803	42,928	42,439	42,065	42,042	30,287	
Manufacturing.....	15,832	15,797	15,593	15,233	15,328	15,237	15,429	15,510	15,475	15,372	15,348	15,271	15,064	17,381	10,078	
Mining.....	894	895	896	866	893	884	856	879	880	883	874	883	883	917	845	
Contract construction ²	1,895	1,900	1,894	1,847	1,768	1,685	1,619	1,534	1,502	1,527	1,644	1,713	1,753	1,567	1,150	
Transportation and public utilities.....	4,102	4,115	4,145	4,140	4,115	3,970	3,836	4,020	4,011	4,014	4,071	4,101	4,093	3,619	2,912	
Trade.....	8,880	8,684	8,563	8,558	8,582	8,545	8,552	8,565	8,507	8,552	9,234	8,898	8,667	7,322	6,705	
Finance.....	1,586	1,583	1,602	1,590	1,567	1,561	1,554	1,555	1,546	1,544	1,546	1,543	1,540	1,401	1,382	
Service.....	4,662	4,634	4,619	4,686	4,711	4,590	4,552	4,565	4,561	4,527	4,573	4,555	4,514	3,786	3,228	
Federal, State, and local Government.....	5,447	5,425	5,288	5,281	5,399	5,447	5,426	5,415	5,367	5,384	5,638	5,475	5,551	6,049	3,987	

¹ Estimates include all full- and part-time wage and salaried workers in non-agricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded. These estimates have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency. Data for the current and immediately preceding months are subject to revision.

² These figures cover all employees of private firms whose major activity is construction. They are not directly comparable with the construction employment estimates presented in table 2, p. 1111, of the June 1947 issue of this publication, which include self-employed persons, working proprietors, and force-account workers and other employees of nonconstruction firms or public bodies who engage in construction work, as well as all employees of construction firms. An article presenting this other construction employment series appeared in the August issue of this publication, and will appear in every third issue thereafter.

TABLE A-3: Estimated Number of Wage and Salary Workers¹ in Manufacturing Industries, by Major Industry Group

[In thousands]

Major industry group	1947											1946			Annual average	
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	1939	
All manufacturing.....	15,832	15,797	15,593	15,233	15,328	15,237	15,429	15,510	15,475	15,372	15,348	15,271	15,064	17,381	10,078	
Durable goods.....	7,938	7,880	7,792	7,691	7,863	7,781	7,892	7,892	7,857	7,781	7,731	7,721	7,623	10,297	4,357	
Nondurable goods.....	7,894	7,917	7,801	7,542	7,465	7,537	7,618	7,618	7,618	7,591	7,617	7,550	7,441	7,084	5,720	
Iron and steel and their products.....	1,874	1,865	1,854	1,826	1,839	1,829	1,842	1,840	1,832	1,823	1,787	1,800	1,761	2,034	1,171	
Electrical machinery.....	749	741	731	729	746	718	732	775	777	773	771	763	751	914	355	
Machinery, except electrical.....	1,535	1,531	1,518	1,491	1,528	1,532	1,536	1,522	1,512	1,504	1,489	1,479	1,458	1,585	600	
Transportation equipment, except automobiles.....	548	531	520	517	583	587	601	596	599	603	600	592	588	2,951	103	
Automobiles.....	984	982	953	970	937	926	987	971	965	924	943	954	954	845	466	
Nonferrous metals and their products.....	465	462	457	452	467	479	491	496	498	494	493	488	483	525	283	
Lumber and timber basic products.....	751	748	748	724	730	715	690	673	660	654	652	659	650	589	465	
Furniture and finished lumber products.....	532	524	517	503	510	507	516	524	523	514	504	497	489	429	385	
Stone, clay, and glass products.....	500	496	494	479	493	488	497	495	491	492	492	489	489	422	349	
Textile-mill products and other fiber manufacturers.....	1,333	1,306	1,287	1,273	1,293	1,310	1,336	1,355	1,362	1,354	1,353	1,340	1,322	1,330	1,235	
Apparel and other finished textile products.....	1,344	1,309	1,282	1,196	1,195	1,192	1,222	1,277	1,274	1,244	1,229	1,209	1,211	1,080	894	
Leather and leather products.....	408	406	401	390	387	385	398	404	405	403	403	398	395	378	383	
Food.....	1,696	1,821	1,791	1,665	1,557	1,516	1,505	1,487	1,485	1,513	1,548	1,544	1,490	1,418	1,192	
Tobacco manufactures.....	103	100	99	97	97	96	95	100	103	104	105	104	102	103	105	
Paper and allied products.....	467	462	461	454	462	461	465	467	467	465	465	461	464	389	320	
Printing, publishing, and allied industries.....	706	702	697	693	692	690	689	687	687	683	688	679	672	549	561	
Chemicals and allied products.....	755	749	730	733	726	744	747	750	747	741	732	728	714	873	421	
Products of petroleum and coal.....	233	233	234	235	231	228	223	224	222	222	221	222	222	170	147	
Rubber products.....	273	269	268	265	272	276	289	293	295	294	296	294	290	231	150	
Miscellaneous industries.....	574	560	551	541	553	558	568	574	571	568	577	571	569	563	311	

¹ Estimates include all full- and part-time production and nonproduction workers in manufacturing industries who worked or received pay during the pay period ending nearest the 15th of the month. These estimates have been adjusted to levels indicated by the final 1945 data made available by

the Bureau of Employment Security of the Federal Security Agency. Comparable series from January 1939 are available upon request. Data for the current and immediately preceding months are subject to revision.

TABLE A-4: Estimated Number of Wage and Salary Workers¹ in Manufacturing Industries, by State
[In thousands]

	1947										1946				Annual average 1948
	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.		
New England:															
Maine	114.7	114.5	111.5	107.9	108.0	108.6	115.3	118.0	117.9	117.8	117.1	117.7	117.6	144.4	
New Hampshire	82.1	80.7	77.6	79.3	78.7	81.1	83.0	83.5	82.4	83.0	81.6	79.0	79.6	77.0	
Vermont	39.9	40.2	39.2	39.4	39.4	42.0	42.9	43.2	43.3	43.1	41.8	42.1	41.6	41.3	
Massachusetts	732.5	720.4	707.2	724.7	734.3	749.9	763.8	765.8	761.6	766.9	762.1	754.1	750.0	855.6	
Rhode Island	148.1	143.0	141.4	147.0	147.7	150.6	153.8	154.0	153.6	154.4	152.0	150.5	147.7	169.4	
Connecticut	411.1	407.8	404.6	414.1	417.0	420.1	424.2	425.2	422.0	420.6	416.1	410.9	406.7	504.2	
Middle Atlantic:															
New York	1,900.1	1,870.8	1,801.9	1,841.6	1,858.0	1,893.4	1,934.5	1,939.1	1,922.9	1,930.3	1,930.6	1,928.9	1,926.8	2,115.7	
New Jersey	749.2	735.9	719.6	745.2	727.0	738.5	768.6	768.4	770.3	768.0	757.7	753.2	748.9	951.1	
Pennsylvania	1,505.8	1,491.7	1,471.8	1,487.1	1,494.5	1,507.7	1,511.8	1,513.1	1,518.8	1,515.1	1,511.7	1,458.1	1,482.6	1,579.3	
East North Central:															
Ohio	1,244.0	1,238.1	1,232.0	1,244.5	1,238.7	1,254.6	1,255.4	1,251.3	1,242.7	1,231.1	1,238.3	1,230.5	1,223.5	1,363.3	
Indiana	580.3	552.3	550.0	553.2	550.1	554.4	555.8	556.2	549.6	544.2	538.4	538.3	545.1	633.1	
Illinois	1,249.0	1,237.8	1,228.6	1,238.3	1,232.0	1,248.2	1,249.4	1,251.1	1,244.4	1,236.0	1,229.6	1,203.4	1,195.7	1,263.7	
Michigan	1,023.3	1,004.6	997.0	1,013.1	980.3	1,035.4	1,046.7	1,038.5	1,027.8	1,032.8	1,041.6	1,033.3	1,040.6	1,181.8	
Wisconsin	442.2	442.1	451.8	430.4	425.8	429.8	429.3	424.6	420.7	422.5	420.1	412.8	417.8	442.8	
West North Central:															
Minnesota	209.9	210.6	205.1	194.5	193.5	195.1	197.8	199.1	199.0	200.1	200.2	196.0	200.0	215.1	
Iowa	149.4	149.1	147.4	146.5	145.0	146.6	147.0	149.4	148.8	146.9	144.0	132.0	136.4	161.7	
Missouri	356.8	356.6	352.9	355.5	351.3	355.9	*355.8	*359.8	355.3	357.9	356.0	343.7	340.2	412.9	
North Dakota	7.0	7.2	7.0	7.0	6.8	6.5	6.5	6.3	6.4	6.6	6.5	6.0	5.9	5.6	
South Dakota	11.3	11.5	11.8	11.5	11.3	11.5	11.3	11.5	11.4	11.5	10.5	8.4	8.2	10.3	
Nebraska	43.1	43.2	43.4	43.1	42.5	41.9	42.8	42.8	44.1	44.5	44.0	39.6	40.3	60.8	
Kansas	70.4	80.0	80.7	81.0	79.5	79.3	77.8	78.1	*78.9	79.6	*79.3	*74.0	*73.7	144.2	
South Atlantic:															
Delaware	48.2	48.4	45.2	45.4	45.4	44.9	45.0	44.6	45.3	45.2	45.0	45.1	48.0	55.2	
Maryland	232.4	228.2	217.4	224.3	228.9	228.4	236.2	237.3	237.9	241.3	240.7	238.6	245.5	248.8	
District of Columbia	17.5	17.3	17.4	17.2	17.1	17.2	17.1	16.9	16.9	17.3	17.0	16.7	16.7	15.8	
Virginia	214.5	211.5	208.2	207.9	209.4	209.1	210.1	210.1	211.4	213.3	212.6	211.4	211.4	231.9	
West Virginia	132.8	132.5	131.0	132.6	131.5	131.0	131.0	132.0	131.9	131.9	133.4	131.4	132.9	132.2	
North Carolina	367.7	366.1	364.7	365.6	366.4	372.7	376.0	375.7	373.9	371.5	368.2	365.0	361.9	399.9	
South Carolina	192.3	192.0	191.5	188.9	188.7	189.7	189.8	189.5	188.5	188.0	186.7	183.3	182.8	191.8	
Georgia	251.9	248.5	238.2	*246.2	249.7	253.9	254.0	255.9	257.9	260.0	263.6	261.5	260.8	302.9	
Florida	78.6	76.8	76.0	77.1	76.6	81.9	86.8	88.1	90.6	90.4	89.4	79.6	77.1	136.0	
East South Central:															
Kentucky	128.2	125.8	122.4	123.6	123.9	130.7	129.1	129.9	129.1	127.4	122.2	126.2	131.7		
Tennessee	252.2	250.8	246.2	245.2	245.7	249.2	249.9	250.9	250.0	247.7	248.6	245.0	243.2	255.9	
Alabama	217.5	219.8	221.4	224.5	223.4	224.0	224.3	225.0	224.7	222.9	221.6	215.2	212.0	258.5	
Mississippi	95.0	95.3	91.4	90.9	88.5	90.4	92.1	93.5	92.7	91.5	90.5	87.3	87.2	95.1	
West South Central:															
Arkansas	74.9	74.0	71.0	71.5	71.4	72.7	67.9	*67.6	67.4	70.0	70.1	*69.7	69.1	76.7	
Louisiana	142.7	142.6	140.9	135.6	136.6	135.2	*133.4	*132.4	132.7	*133.6	132.5	*128.8	*127.1	164.1	
Oklahoma	55.2	55.2	53.8	53.5	53.0	54.1	54.3	54.6	*54.5	*55.2	*55.8	52.6	52.2	99.7	
Texas	337.9	341.5	335.1	339.3	324.5	325.9	324.8	326.0	324.8	329.8	328.9	315.9	*312.1	424.8	
Mountain:															
Montana	18.1	18.2	18.4	17.8	17.1	16.6	16.4	16.4	16.6	17.9	18.1	18.0	16.9	15.7	
Idaho	19.3	19.5	20.8	20.1	19.2	18.4	18.4	17.7	17.9	20.1	21.9	21.7	23.2	15.9	
Wyoming	6.8	6.8	6.7	6.3	6.1	5.9	5.8	5.8	5.8	6.7	7.0	6.7	5.9	5.1	
Colorado	57.9	56.6	55.9	54.6	53.8	54.1	53.6	53.5	56.0	56.2	58.7	56.9	55.5	67.5	
New Mexico	10.1	10.2	10.1	9.9	10.0	9.9	9.9	9.9	10.0	10.2	10.2	10.3	10.5	7.9	
Arizona	12.7	12.5	12.7	13.2	13.1	13.6	13.3	13.3	13.3	13.9	13.5	12.7	12.2	19.4	
Utah	30.1	26.3	29.1	24.9	24.1	23.6	23.0	22.5	23.0	24.5	25.4	26.2	28.8	33.5	
Nevada	3.7	3.7	3.6	2.5	3.6	3.7	3.5	3.5	3.6	3.5	3.5	3.4	3.4	7.9	
Pacific:															
Washington	191.7	185.0	176.5	179.3	168.4	164.3	163.0	159.7	159.5	160.9	165.2	174.1	177.8	285.6	
Oregon	122.2	122.4	116.6	119.1	117.1	115.5	114.4	115.2	116.1	118.0	118.4	122.2	127.4	192.1	
California	743.6	750.9	703.6	689.1	692.7	698.7	691.7	693.6	696.9	705.9	705.4	725.5	738.8	1,165.5	

* Revised data in all except the first three columns are identified by an asterisk for the first month of publication of such data. Comparable series, January 1943 to date, available upon request to U. S. Department of Labor, or cooperating State agency listed below:

Cooperating State Agencies

Arizona—Employment Security Commission, P. O. Box 111, Phoenix.
 California—Division of Labor Statistics and Research, San Francisco 2.
 Connecticut—Employment Security Division, Hartford 15.
 Delaware—Federal Reserve Bank of Philadelphia, 925 Chestnut Street, Philadelphia 1.
 Florida—Florida Industrial Commission, Tallahassee.
 Georgia—Employment Security Administration, State Office Building, Atlanta 3.
 Illinois—Dept. of Labor, Division of Statistics and Research, Chicago 6.
 Indiana—Employment Security Division, Indianapolis 12.
 Kansas—Kansas State Labor Department, Topeka.
 Louisiana—Bureau of Business Research, College of Commerce, Louisiana State University, Baton Rouge 3.
 Maryland—Dept. of Labor and Industry, Baltimore 2.
 Massachusetts—Dept. of Labor and Industries, State House, Boston 33.
 Michigan—Dept. of Labor and Industry, Lansing 13.
 Minnesota—Division of Employment and Security, St. Paul 1.

Missouri—Division of Employment Security, Dept. of Labor and Industry Relations, 1101 Capitol Ave., Jefferson City.
 Montana—Unemployment Compensation Commission of Montana, Helena.
 Nevada—Employment Security Department, Carson City.
 New Jersey—Dept. of Labor, Trenton 8.
 New York—Research & Statistics, Division of Placement and Unemployment Insurance, New York State Department of Labor, 342 Madison Ave., New York 17.
 North Carolina—North Carolina Dept. of Labor, Raleigh.
 Oklahoma—Oklahoma Employment Security Commission, American National Bldg., Oklahoma City 2.
 Pennsylvania—Federal Reserve Bank of Philadelphia, 925 Chestnut St., Philadelphia 1. (Manufacturing) Dept. of Labor and Industry, Harrisburg. (Nonmanufacturing)
 Rhode Island—Dept. of Labor, Division of Census and Statistics, Providence 2.
 Texas—Bureau of Business Research, University of Texas, Austin 12.
 Utah—Dept. of Employment Security, Salt Lake City 13.
 Virginia—Division of Research and Statistics, State Department of Labor and Industry, Richmond 21.
 Washington—Office of Unemployment Compensation and Placement, P. O. Box 367, Olympia.
 Wisconsin—Industrial Commission of Wisconsin, Madison 3.

See fo

TABLE A-5: Estimated Number of Production Workers in Manufacturing Industries¹

[In thousands]

Industry group and industry	1947										1946			Annual average		
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	1939	
	12,854	12,833	12,638	12,294	12,404	12,341	12,524	12,614	12,593	12,511	12,514	12,449	12,253	14,560	8,192	
All manufacturing	12,854	12,833	12,638	12,294	12,404	12,341	12,524	12,614	12,593	12,511	12,514	12,449	12,253	14,560	8,192	
Durable goods	6,528	6,481	6,398	6,307	6,488	6,426	6,528	6,532	6,502	6,429	6,393	6,379	6,281	8,727	3,611	
Nondurable goods	6,326	6,352	6,240	5,987	5,916	5,915	5,996	6,082	6,091	6,082	6,121	6,070	5,972	5,834	4,581	
<i>Durable goods</i>																
Iron and steel and their products	1,589	1,580	1,572	1,547	1,562	1,555	1,567	1,567	1,562	1,552	1,521	1,535	1,500	1,761	991	
Blast furnaces, steel works, and rolling mills	500.0	502.9	498.1	497.0	491.1	486.5	482.3	483.3	479.7	467.0	481.5	473.5	516.7	388.4		
Gray-iron and semisteel castings	83.2	84.1	83.7	85.3	85.7	86.5	87.1	87.1	86.2	84.4	84.1	81.9	81.5	88.4		
Malleable-iron castings	26.5	26.4	25.1	26.5	25.8	25.6	25.7	25.4	25.1	24.2	24.8	24.4	26.5	18.0		
Steel castings	49.1	48.6	47.6	48.7	49.5	49.4	49.5	49.8	50.5	51.5	51.2	48.8	53.0	30.1		
Cast-iron pipe and fittings	20.6	20.5	20.2	20.4	20.5	19.9	20.2	20.1	19.8	19.2	19.4	19.1	16.7	16.5		
Tin cans and other tinware	47.7	47.1	43.9	42.4	41.8	41.9	41.1	41.3	41.6	41.5	41.3	42.2	32.4	31.8		
Wire drawn from purchased rods	30.1	30.5	30.3	30.7	26.3	30.7	29.7	30.2	30.5	29.9	29.9	29.2	36.0	22.0		
Wirework	40.9	39.9	39.6	39.6	39.2	41.4	42.3	39.7	41.9	40.5	40.9	41.3	32.8	30.4		
Cutlery and edge tools	23.5	23.1	21.3	23.3	25.6	27.0	27.9	27.9	27.8	27.7	27.3	25.8	21.8	15.4		
Tools (except edge tools, machine tools, files and saws)	24.3	24.1	23.7	25.2	24.7	26.6	27.0	26.7	26.7	26.8	26.4	26.8	27.8	15.3		
Hardware	48.7	47.8	48.6	49.5	50.1	50.4	50.9	50.6	50.1	49.6	49.5	48.3	45.3	35.7		
Plumbers' supplies	28.4	28.6	28.5	29.2	30.0	30.8	30.5	30.7	30.1	29.8	29.2	23.5	23.0	24.6		
Stoves, oil burners, and heating equipment, not elsewhere classified	67.2	64.4	61.7	63.0	63.0	62.8	64.2	63.5	62.8	60.8	62.0	60.3	55.6	46.1		
Steam and hot-water heating apparatus and steam fittings	45.4	45.5	44.8	47.6	48.5	50.5	52.5	52.5	52.6	51.0	51.4	50.2	50.3	30.3		
Stamped and enameled ware and galvanizing	85.2	83.2	81.4	82.7	83.8	84.9	86.0	85.5	84.9	84.5	83.7	82.1	80.3	55.6		
Fabricated structural and ornamental metalwork	59.3	59.6	58.5	58.7	59.0	58.9	58.8	57.9	57.5	57.1	56.9	55.1	71.0	35.5		
Metal doors, sash, frames, molding, and trim	10.4	10.3	9.5	9.3	9.1	9.8	10.0	10.1	10.2	10.1	10.1	10.0	12.8	7.7		
Bolts, nuts, washers, and rivets	21.0	21.1	20.7	21.2	21.5	21.7	21.5	21.7	21.6	21.2	21.0	20.6	29.1	14.3		
Forgings, iron and steel	26.9	26.9	26.6	27.2	26.8	27.3	27.4	27.3	26.9	26.7	26.7	26.5	40.2	15.4		
Wrought pipe, welded and heavy-riveted	12.7	12.6	12.4	12.7	13.4	13.6	13.3	13.8	13.6	13.2	13.8	13.1	25.8	8.4		
Screw-machine products and wood screws	26.1	26.2	26.7	27.7	28.0	29.1	29.4	29.5	29.4	29.3	29.3	29.0	49.6	16.9		
Steel barrels, kegs, and drums	6.1	6.2	6.2	6.1	6.3	6.4	6.2	6.1	6.2	6.1	6.3	6.3	7.8	6.1		
Firearms	13.7	13.6	14.3	14.2	14.1	14.4	14.2	14.3	14.1	14.0	14.2	14.2	66.1	5.0		
Electrical machinery	577	567	559	557	574	554	567	569	601	598	597	590	579	741	259	
Electrical equipment	309.8	305.7	306.5	314.7	307.8	312.1	316.8	318.1	315.7	314.8	310.9	307.6	466.3	180.8		
Radios and phonographs	82.5	80.3	77.6	81.8	85.7	89.4	92.0	92.5	92.8	93.5	91.5	88.5	114.7	43.5		
Communication equipment	77.5	77.3	78.0	80.9	67.7	70.8	91.6	92.2	92.4	92.6	92.2	90.6	110.4	32.1		
Machinery, except electrical	1,190	1,185	1,171	1,149	1,185	1,194	1,197	1,189	1,181	1,173	1,161	1,150	1,131	1,293	529	
Machinery and machine-shop products	378.3	376.0	373.3	381.8	383.6	386.0	385.6	385.1	381.9	379.6	377.7	370.3	490.4	202.3		
Engines and turbines	43.2	43.3	43.0	43.1	44.4	44.9	45.6	45.5	45.4	45.6	45.6	44.8	48.8	18.7		
Tractors	56.4	55.1	56.3	56.9	55.5	55.0	54.7	55.0	54.8	54.5	53.7	53.7	52.4	31.3		
Agricultural machinery, excluding tractors	51.3	50.5	49.0	51.4	50.2	49.5	46.9	46.8	46.1	44.8	43.5	42.3	37.7	27.8		
Machine tools	51.7	51.9	50.1	53.4	55.1	57.2	58.0	59.0	59.8	60.6	60.3	62.0	109.7	36.6		
Machine-tool accessories	42.1	42.5	42.1	44.9	46.2	47.8	49.0	50.1	51.3	51.5	51.8	51.2	88.4	25.1		
Textile machinery	36.9	35.9	36.1	38.7	38.4	37.8	37.6	37.1	36.4	35.3	34.7	33.9	28.5	21.9		
Pumps and pumping equipment	56.1	55.7	56.4	58.6	59.0	59.6	59.8	59.4	58.8	58.9	58.3	57.4	76.8	24.2		
Typewriters	23.9	23.4	14.3	18.1	23.8	23.4	23.3	23.0	22.7	22.3	22.2	21.3	12.0	16.2		
Cash registers, adding and calculating machines	41.6	40.5	37.5	37.7	40.7	40.5	39.8	38.7	37.6	37.3	36.4	35.4	34.8	19.7		
Washing machines, wringers, and driers, domestic	14.3	14.7	14.5	14.8	14.5	14.2	13.8	13.3	12.7	12.5	12.6	12.0	13.3	7.5		
Sewing machines, domestic and industrial	11.9	9.4	11.9	10.7	10.5	11.5	11.3	11.1	10.9	10.7	10.5	10.3	10.7	7.8		
Refrigerators and refrigeration equipment	78.1	77.8	76.4	78.3	74.3	72.9	70.7	67.1	68.2	65.2	64.2	63.5	54.4	35.2		
Transportation equipment, except automobiles	424	400	397	395	463	466	477	471	472	474	473	464	457	2,506	159	
Locomotives	24.8	24.3	23.8	24.3	23.8	25.1	26.0	26.9	26.6	27.1	27.1	27.4	34.1	6.5		
Cars, electric and steam-railroad	55.4	54.6	55.1	54.9	55.2	55.6	54.0	53.5	51.2	50.8	50.3	48.5	60.5	24.5		
Aircraft and parts, excluding aircraft engines	130.6	130.7	129.3	133.9	138.2	141.9	141.2	141.9	143.9	144.7	146.3	143.2	794.9	39.7		
Aircraft engines	26.5	26.7	26.8	26.9	27.0	28.1	28.0	28.6	29.5	29.0	28.6	28.6	233.5	8.9		
Shipbuilding and boatbuilding	95.0	86.9	87.7	140.4	140.3	143.9	140.4	140.7	142.4	142.8	133.8	133.9	1,225.2	69.2		
Motorcycles, bicycles, and parts	13.9	13.6	13.0	13.3	12.8	12.8	12.8	12.5	12.2	12.1	11.7	11.5	10.0	7.0		
Automobiles	795	801	772	785	789	751	807	798	791	755	774	778	774	714	402	
Nonferrous metals and their products	397	395	391	386	401	412	424	430	432	428	426	422	417	449	220	
Smelting and refining, primary, of non-ferrous metals	39.3	39.4	40.4	40.1	39.6	40.8	41.0	41.0	40.2	40.2	39.3	38.6	56.4	27.6		
Alloying and rolling and drawing of nonferrous metals except aluminum	52.5	52.8	53.8	57.1	59.8	61.7	62.4	63.7	63.0	62.8	62.0	61.5	75.8	38.8		
Clocks and watches	27.5	26.9	24.6	27.3	27.6	28.0	28.1	28.5	28.3	28.2	28.5	28.2	25.2	20.3		
Jewelry (precious metals) and jewelers' findings	17.1	16.6	16.1	16.5	16.7	17.2	17.7	17.8	17.9	17.9	17.4	17.4	15.9	14.5		
Silverware and plated ware	16.6	16.2	15.5	15.9	15.8	15.8	15.8	15.8	15.6	15.2	15.1	14.7	11.8	12.1		

See footnotes at end of table.

TABLE A-5: Estimated Number of Production Workers in Manufacturing Industries¹—Continued

(In thousands)

Industry group and industry	1947											1946			Annual average	
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	1939	
<i>Durable goods—Continued</i>																
Nonferrous metals and their products—Con.																
Lighting equipment	30.0	30.0	31.0	*31.6	*32.3	32.4	33.0	33.0	32.3	31.6	31.2	31.2	24.3	20.5		
Aluminum manufactures	41.8	40.5	39.6	*43.2	46.2	48.9	50.6	50.8	51.1	51.3	50.9	50.6	79.4	23.5		
Sheet-metal work, not elsewhere classified	25.5	25.7	25.0	25.4	25.4	25.9	26.4	26.5	26.4	26.9	27.2	26.7	29.5	18.8		
Lumber and timber basic products ²	681	679	679	658	665	651	627	611	598	592	599	590	535	420		
Sawmills and logging camps	549.7	551.5	531.3	534.7	523.8	502.8	488.5	477.0	471.1	472.8	479.5	473.8	435.8	313.7		
Planing and plywood mills	129.7	127.6	126.5	128.6	126.1	124.7	122.7	121.1	120.7	119.3	119.1	116.6	99.2	79.1		
Furniture and finished lumber products ²	446	438	433	419	426	425	433	440	441	432	425	419	411	366	328	
Mattresses and bedsprings	33.3	31.5	28.5	29.9	29.8	29.7	31.6	31.4	31.2	30.6	31.5	30.1	21.7	20.5		
Furniture	233.1	230.3	223.9	227.0	225.9	229.2	233.6	235.1	230.1	227.2	223.5	220.0	200.0	177.9		
Wooden boxes, other than cigar	35.6	35.5	35.1	36.2	36.3	36.5	35.9	35.2	35.1	34.3	34.2	33.6	35.4	28.3		
Caskets and other morticians' goods	19.6	19.4	19.1	19.2	19.3	19.6	20.1	19.9	19.9	19.6	18.7	17.3	14.2	13.9		
Wood preserving	18.3	18.9	18.6	18.2	18.2	17.8	17.6	17.3	16.8	16.5	16.5	12.4	12.6			
Wood, turned and shaped	31.4	31.5	30.2	30.2	30.5	33.5	33.8	34.4	32.7	31.9	30.7	30.3	26.4	24.6		
Stone, clay, and glass products ²	429	427	424	411	423	418	429	427	424	425	424	422	422	360	294	
Glass and glassware	118.6	118.2	113.1	120.3	122.1	122.8	121.8	119.7	122.7	122.4	122.9	124.2	99.8	71.4		
Glass products made from purchased glass	12.0	12.0	12.4	12.4	12.8	13.3	13.4	13.4	13.2	12.9	12.7	12.4	11.3	10.0		
Cement	37.0	36.8	35.7	35.3	29.7	35.4	34.9	35.0	35.0	35.2	34.7	34.6	27.1	24.4		
Brick, tile, and terra cotta	75.3	75.1	73.3	73.0	72.1	72.3	71.1	70.5	70.4	69.3	69.4	70.9	52.5	58.0		
Pottery and related products	55.9	56.1	54.3	55.5	56.0	56.2	56.2	55.3	55.0	54.1	53.7	45.0	33.8			
Gypsum	6.1	6.1	6.0	5.7	5.9	5.9	6.1	6.1	6.2	6.1	5.8	4.5	4.5	4.9		
Wall board, plaster (except gypsum), and mineral wool	12.2	11.8	11.5	11.2	11.0	10.8	10.8	11.1	11.1	11.0	10.8	11.1	8.1			
Lime	9.2	9.2	9.3	9.3	9.4	9.2	9.0	9.0	8.9	9.0	9.0	9.0	9.3	9.5		
Marble, granite, slate, and other products	18.5	18.4	16.8	16.5	16.6	17.8	17.7	17.4	16.9	17.3	17.2	17.2	12.5	18.5		
Abrasives	17.3	16.2	17.0	18.7	19.4	19.6	20.1	20.1	20.3	20.1	20.0	19.8	23.4	7.7		
Asbestos products	21.0	20.7	19.5	20.7	20.9	21.0	21.4	21.4	21.6	21.7	21.6	21.3	22.0	15.9		
<i>Nondurable goods</i>																
Textile-mill products and other fiber manufactures	1,217	1,191	1,172	1,158	1,179	1,197	1,223	1,242	1,247	1,242	1,242	1,230	1,215	1,237	1,144	
Cotton manufactures, except smallwares	449.7	445.7	444.7	453.3	460.2	467.7	470.1	471.5	470.1	468.8	465.3	459.5	486.5	396.0		
Cotton smallwares	12.1	11.8	11.8	12.4	13.2	13.7	14.2	14.4	14.6	14.5	14.3	14.5	16.5	13.3		
Silk and rayon goods	91.8	90.3	88.9	90.6	91.9	94.0	95.2	95.4	95.7	95.6	94.8	93.8	95.8	119.8		
Woolen and worsted manufactures, except dyeing and finishing	151.6	146.5	142.3	146.7	148.1	153.3	158.1	162.1	163.0	164.4	162.2	160.5	166.9	149.2		
Hosiery	112.8	111.2	109.2	108.0	111.9	117.0	120.1	120.0	119.0	118.5	117.5	115.8	117.1	150.1		
Knitted cloth	9.5	9.4	9.0	9.1	9.3	9.8	10.3	10.4	10.5	10.9	11.2	11.2	11.8	10.9		
Knitted outerwear and knitted gloves	25.2	24.0	23.3	24.2	25.7	27.4	29.4	30.1	30.4	31.7	31.5	30.8	32.3	28.1		
Knitted underwear	39.5	39.1	37.9	38.0	37.6	37.9	37.8	37.3	36.6	36.0	35.6	35.2	41.8	33.5		
Dyeing and finishing textiles, including woolen and worsted	63.5	62.2	61.4	64.0	64.6	65.4	66.3	66.4	66.0	65.0	64.8	64.1	67.9	66.9		
Carpets and rugs, wool	29.2	28.8	28.4	28.5	28.3	28.0	27.8	27.2	26.7	26.4	25.7	25.0	22.6	25.6		
Hats, fur-felt	11.3	11.4	11.0	11.2	11.0	10.3	11.9	12.0	12.0	11.9	11.7	11.5	10.0	14.6		
Jute goods, except felts	2.6	2.6	3.6	3.8	3.8	3.8	3.9	3.9	3.8	3.7	3.6	3.8	3.9	3.6		
Cordage and twine	13.1	13.2	13.2	13.8	14.1	14.5	14.7	15.0	15.0	15.4	15.2	15.4	16.9	12.1		
Apparel and other finished textile products ²	1,181	1,149	1,122	1,040	1,040	1,037	1,066	1,120	1,119	1,090	1,079	1,063	1,065	958	790	
Men's clothing, not elsewhere classified	299.4	294.7	278.2	284.5	280.5	283.5	287.5	287.8	284.6	282.7	279.8	270.3	265.9	229.6		
Shirts, collars, and nightwear	77.2	75.1	71.7	74.3	73.2	73.3	74.1	73.7	71.4	70.5	68.9	65.2	67.2	74.0		
Underwear and neckwear, men's	17.2	16.6	15.4	16.8	17.4	18.0	18.1	18.5	18.3	18.8	18.6	18.5	16.3	17.0		
Work shirts	15.5	15.2	14.0	14.4	15.3	15.7	16.5	16.8	16.3	15.9	15.4	15.0	18.5	14.1		
Women's clothing, not elsewhere classified	450.7	439.1	400.2	389.1	389.3	407.5	442.3	439.4	421.8	414.4	406.8	417.9	345.3	286.2		
Corsets and allied garments	18.0	17.5	16.9	17.7	17.7	17.6	17.5	17.0	16.8	16.9	16.6	16.3	16.5	18.8		
Millinery	23.7	23.6	20.5	20.2	20.3	22.0	26.2	26.0	24.2	22.5	20.2	24.3	23.3	25.5		
Handkerchiefs	5.0	4.6	4.2	4.6	4.7	4.8	4.9	4.8	4.7	4.6	4.4	4.4	5.7	5.1		
Curtains, draperies, and bedspreads	28.9	27.3	23.2	22.5	22.2	22.3	23.5	24.8	25.7	26.9	29.5	30.2	25.2	17.8		
Curtainings, draperies, and bedspreads, etc.	30.6	29.4	26.6	28.6	29.3	29.0	28.7	28.8	29.1	29.6	29.3	30.1	24.0	11.2		
Textile bags	27.8	27.3	26.9	27.1	27.8	28.3	29.4	29.7	29.3	29.8	28.9	28.2	19.6	12.6		
Leather and leather products ²	366	364	360	349	346	345	358	363	364	362	357	355	340	347		
Leather	46.7	46.0	45.4	45.5	45.9	46.3	46.0	46.3	45.8	45.4	43.3	44.0	46.5	50.0		
Boot and shoe cut stock and findings	19.3	19.2	18.8	18.0	18.3	19.4	20.2	20.1	20.3	20.6	20.7	20.3	19.2	20.0		
Boots and shoes	225.1	223.4	216.8	214.4	212.6	220.7	224.4	224.2	222.6	221.7	218.6	216.3	205.6	230.9		
Leather gloves and mittens	12.8	12.8	11.9	12.1	12.0	12.3	12.7	12.8	13.1	13.7	13.9	14.0	15.4	10.0		
Trunks and suitcases	13.4	12.7	11.7	12.2	12.1	13.2	13.6	13.7	13.9	14.7	14.8	15.0	13.7	8.3		
Food ³	1,255	1,376	1,344	1,223	1,114	1,077	1,068	1,055	1,059	1,098	1,139	1,141	1,091	1,056	855	
Slaughtering and meat packing	182.0	182.9	182.3	176.4	172.9	167.8	172.5	178.2	184.4	179.7	163.2	92.9	174.0	135.0		
Butter	35.8	37.8	38.8	38.4	37.4	35.4	34.0	33.3	32.8	34.7	35.8	36.3	33.2	20.1		
Condensed and evaporated milk	21.2	22.7	2													

TABLE A-5: Estimated Number of Production Workers in Manufacturing Industries¹—Continued

[In thousands]

Industry group and industry	1947										1946			Annual average	
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	1939
<i>Nondurable goods—Continued</i>															
Food—Continued															
Baking	219.8	218.0	216.6	213.2	211.4	212.2	209.8	208.5	212.3	215.1	211.9	205.3	211.3	190.4	
Sugar refining, cane	20.8	20.8	20.8	20.4	19.7	19.0	17.8	16.3	18.0	18.3	15.5	14.0	16.7	15.9	
Sugar, beet	12.2	10.5	8.1	7.1	6.5	5.5	5.4	6.0	11.0	19.3	27.1	24.1	10.1	11.6	
Confectionery	68.1	62.7	57.9	60.2	62.0	64.2	63.7	62.5	64.0	65.9	63.7	63.0	59.5	55.7	
Beverages, nonalcoholic	39.1	39.7	35.5	32.2	30.0	28.5	27.2	26.8	26.9	27.5	27.5	27.5	32.2	23.8	
Malt liquors	76.2	76.0	74.0	70.6	66.9	64.9	63.3	62.7	62.8	64.0	63.0	63.4	54.3	40.5	
Canning and preserving	379.0	349.7	246.2	155.3	135.7	135.4	129.4	137.9	158.4	194.8	215.6	270.0	188.5	150.3	
Tobacco manufactures	88	86	85	84	84	82	86	89	90	92	91	89	91	93	
Cigarettes	32.6	32.9	32.9	33.3	32.9	32.8	32.9	33.4	34.1	34.5	34.5	33.9	33.9	27.4	
Cigars	40.3	39.3	37.9	38.0	37.0	36.5	40.1	42.1	41.8	42.9	42.3	41.4	42.7	50.9	
Tobacco (chewing and smoking) and snuff	7.1	7.0	6.9	6.8	6.7	6.5	7.0	7.2	7.5	7.8	8.0	7.8	8.4	0.2	
Paper and allied products ²	385	381	380	373	381	381	385	387	386	387	383	376	324	265	
Paper and pulp	196.8	196.5	194.2	194.7	193.2	192.3	193.5	193.4	192.4	191.8	190.0	187.7	160.3	137.8	
Paper goods, other	57.4	56.7	56.4	57.9	57.9	58.1	58.0	57.9	57.7	58.0	57.9	56.8	50.2	37.7	
Envelopes	12.0	11.8	11.6	11.9	12.0	12.0	12.0	11.9	12.0	11.8	11.4	10.2	8.7		
Paper bags	17.7	18.0	17.8	18.2	18.7	19.4	19.5	19.8	20.0	19.7	19.2	18.7	13.1	11.1	
Paper boxes	96.0	95.6	92.6	97.0	98.2	101.6	102.7	102.7	103.0	104.3	103.2	100.4	89.6	69.3	
Printing, publishing, and allied industries ²	433	429	426	422	423	422	421	421	420	417	420	415	410	331	328
Newspapers and periodicals	144.4	143.0	142.2	142.0	141.2	139.9	138.7	137.3	135.3	136.7	135.0	133.9	113.0	118.7	
Printing, book and job	177.5	175.7	176.4	175.8	175.1	176.3	176.7	177.9	178.0	178.0	176.5	174.3	138.7	127.6	
Lithographing	32.5	32.6	31.5	32.4	32.7	32.7	32.8	32.8	32.5	32.7	32.5	32.0	25.9	26.3	
Bookbinding	38.2	38.4	37.0	37.5	37.4	37.3	37.0	36.7	36.5	36.9	36.4	35.6	29.4	25.8	
Chemicals and allied products	572	563	547	547	543	561	565	569	568	564	555	550	539	734	288
Paints, varnishes, and colors	36.5	36.2	35.9	37.0	37.4	37.3	37.3	36.8	36.3	36.4	35.9	36.0	29.5	28.2	
Drugs, medicines, and insecticides	51.6	50.9	51.3	52.3	53.3	53.9	54.3	54.0	54.2	53.8	53.5	53.1	45.5	27.4	
Perfumes and cosmetics	9.8	9.4	9.0	9.3	9.3	9.7	10.3	10.7	10.9	11.5	12.4	12.6	11.5	10.4	
Soap	15.7	15.3	15.4	15.6	15.2	15.3	15.4	15.1	14.5	14.3	13.8	13.7	13.3	13.6	
Rayon and allied products	58.8	58.0	58.4	50.0	58.5	58.3	58.4	59.1	58.9	58.6	58.9	57.8	52.1	48.3	
Chemicals, not elsewhere classified	123.6	124.6	125.8	126.7	125.4	125.3	124.6	124.2	124.3	122.9	120.5	118.1	116.7	69.6	
Explosives and safety fuses	13.8	13.8	12.8	13.8	13.9	13.9	13.9	13.7	13.4	12.9	12.7	12.9	90.5	7.3	
Compressed and liquefied gases	6.2	6.3	6.2	6.3	6.2	6.0	5.9	6.0	5.9	5.7	5.8	5.3	6.3	4.0	
Ammunition, small-arms	6.9	4.4	6.8	7.0	6.9	6.7	6.7	6.6	6.6	6.6	6.8	6.9	154.1	4.3	
Fireworks	2.4	2.0	2.4	2.9	2.9	2.8	2.6	2.7	3.0	3.5	3.5	3.4	28.2	1.2	
Cottonseed oil	15.2	10.9	9.7	9.9	11.0	13.0	15.0	16.5	17.3	18.9	20.5	17.5	17.7	15.2	
Fertilizers	22.9	21.5	20.4	21.5	25.6	27.4	28.8	27.9	25.6	23.1	22.1	22.0	22.7	18.8	
Products of petroleum and coal	162	162	163	160	158	154	155	155	154	155	155	155	125	106	
Petroleum refining	102.0	103.0	103.0	101.4	100.4	97.6	98.7	98.5	98.3	99.4	99.1	99.2	80.6	72.8	
Coke and byproducts	27.2	27.1	27.1	26.7	26.3	25.9	25.8	26.1	25.6	25.0	25.7	25.8	24.6	21.7	
Paving materials	2.4	2.3	1.9	1.8	1.9	1.9	1.8	1.7	1.6	1.6	1.8	2.0	1.6	2.4	
Roofing materials	13.2	13.1	13.1	12.7	12.5	12.3	12.1	12.3	12.4	12.5	12.7	12.6	9.6	8.0	
Rubber products ²	220	216	216	212	219	223	234	238	240	242	240	236	194	121	
Rubber tires and inner tubes	113.4	117.5	115.1	117.7	119.3	123.1	125.5	126.6	127.7	129.0	129.2	127.1	90.1	54.2	
Rubber boots and shoes	21.0	18.9	20.1	21.4	22.8	23.5	23.8	23.8	23.2	23.0	22.4	21.4	23.8	14.8	
Rubber goods, other	81.5	79.2	76.8	79.5	81.0	87.3	88.3	89.5	89.6	89.9	88.8	87.1	79.9	51.9	
Miscellaneous industries ²	446	435	425	416	427	431	440	446	443	439	448	445	441	445	244
Instruments (professional and scientific), and fire-control equipment	27.6	27.5	27.5	28.1	27.6	28.3	28.3	28.2	28.2	28.4	27.0	28.5	86.7	11.3	
Photographic apparatus	38.2	38.3	38.3	37.4	36.7	36.2	35.9	35.6	35.5	35.4	35.3	35.1	35.5	17.7	
Optical instruments and ophthalmic goods	27.5	27.6	27.9	28.9	29.4	29.7	30.1	30.5	30.6	30.6	30.0	29.8	33.3	11.9	
Pianos, organs, and parts	15.2	14.6	14.9	15.2	15.1	15.1	15.3	14.9	14.6	13.3	13.8	13.4	12.2	7.8	
Games, toys, and dolls	41.0	38.6	36.1	34.8	33.9	33.7	32.6	30.9	29.9	33.8	35.0	33.7	19.1	19.1	
Buttons	11.6	11.4	10.7	11.8	12.3	12.9	13.3	13.5	14.1	14.6	14.2	14.6	13.1	11.2	
Fire extinguishers	2.8	2.8	2.9	2.9	3.0	3.2	3.2	3.0	3.0	3.0	3.0	2.9	9.3	1.0	

*Revised

¹ Data are based on reports from cooperating establishments covering production and related workers. Major industry groups have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency. The Bureau has not prepared estimates for certain industries, and with the exception of the industries in the major industry groups indicated by note 2, estimates for individual industries have been adjusted only to levels indicated by the 1939 Census of Manufactures but not to Federal Security Agency data. For these reasons the sums of the individual industry estimates may not agree with the totals shown for the major industry groups. Data shown for the two most recent months are subject to revision without notation. Revised data in any column other than the first three are identified by an asterisk.

² Data for the individual industries comprising the major industry groups have been adjusted to levels indicated by final 1945 data, made available by the Bureau of Employment Security of the Federal Security Agency. Comparable series from January 1939 are available upon request. More recently adjusted data for individual industries comprising the major industry groups indicated below supersede data shown in publications dated prior to:

Major industry groups	Mimeo-graphed release	Monthly Labor Review
Paper and allied products	Sept. 1947	Oct. 1947
Rubber products	Sept. 1947	Oct. 1947
Food	Nov. 1947	Dec. 1947
Miscellaneous industries	Nov. 1947	Dec. 1947

TABLE A-6: Indexes of Production-Worker Employment in Manufacturing Industries¹

[1939 average=100]

Industry group and industry	1947												1946			Annual average
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943		
	156.9	156.7	154.3	150.1	151.4	150.6	152.9	154.0	153.7	152.7	152.8	152.0	149.6	177.7		
All manufacturing	156.9	156.7	154.3	150.1	151.4	150.6	152.9	154.0	153.7	152.7	152.8	152.0	149.6	177.7		
Durable goods	180.8	179.5	177.2	174.7	179.7	178.0	180.8	180.9	180.1	178.0	177.0	176.7	173.9	241.7		
Nondurable goods	138.1	138.7	136.2	130.7	129.1	129.1	130.9	132.8	133.0	132.8	133.6	132.5	130.4	127.4		
<i>Durable goods</i>																
Iron and steel and their products	160.2	159.3	158.5	156.1	157.5	156.8	158.0	158.1	157.5	156.5	153.4	154.9	151.2	177.6		
Blast furnaces, steel works, and rolling mills	128.7	129.5	128.2	128.0	126.4	125.3	124.2	124.4	123.5	120.2	124.0	121.9	123.0			
Gray-iron and semisteel castings	142.3	143.9	143.3	146.0	146.7	148.1	149.1	149.1	147.4	144.5	144.0	140.2	139.4			
Malleable-iron castings	146.8	146.3	139.1	146.9	143.2	142.1	142.3	141.1	139.2	134.1	137.5	135.5	146.8			
Steel castings	163.1	161.5	158.1	161.7	164.4	164.3	164.4	165.4	167.7	171.3	170.3	162.0	275.8			
Cast-iron pipe and fittings	125.0	124.0	122.2	123.7	124.2	120.5	122.4	121.8	120.0	116.2	117.6	115.7	100.8			
Tin cans and other tinware	150.1	148.1	138.1	133.4	131.7	132.0	129.4	130.1	131.0	130.5	129.9	132.9	102.0			
Wire drawn from purchased rods	137.1	138.6	137.7	139.9	119.6	139.6	136.0	137.3	138.8	135.9	136.3	132.7	163.8			
Wirework	134.5	131.4	130.4	130.3	129.0	136.4	139.3	130.6	137.7	133.4	134.6	135.9	108.0			
Cutlery and edge tools	152.2	149.5	138.4	151.4	165.8	175.2	180.8	180.7	180.5	179.8	177.3	167.4	141.3			
Tools (except edge tools, machine tools, files, and saws)	158.9	157.5	154.5	164.6	161.6	174.0	176.2	174.6	174.1	175.0	172.4	174.9	181.5			
Hardware	136.7	134.1	136.3	138.9	140.5	141.3	142.8	141.9	140.4	139.0	139.0	135.5	127.1			
Plumbers' supplies	115.4	115.9	115.5	117.8	121.8	124.9	123.8	124.7	122.2	120.8	118.6	95.4	93.5			
Stoves, oil burners, and heating equipment not elsewhere classified	145.6	139.6	133.7	136.6	136.6	136.1	130.3	137.6	136.2	131.7	134.4	130.8	120.6			
Steam and hot-water heating apparatus and steam fittings	149.7	150.0	147.8	157.2	159.9	166.5	173.1	173.2	173.5	168.3	169.7	165.7	195.6			
Stamped and enameled ware and galvanizing	153.4	149.8	146.5	148.9	150.9	152.8	154.9	153.9	152.9	152.2	150.7	147.7	160.5			
Fabricated structural and ornamental metal work	166.9	167.8	164.8	165.3	166.1	165.9	165.6	162.9	162.0	160.8	160.3	155.2	200.0			
Metal doors, sash, frames, molding, and trim	134.6	132.4	122.6	120.3	117.1	126.8	129.7	130.7	131.3	130.2	131.0	129.2	164.9			
Bolts, nuts, washers, and rivets	146.7	147.7	144.4	148.1	150.0	151.4	150.6	151.5	150.7	148.3	147.1	143.8	203.1			
Forgings, iron and steel	175.1	174.9	173.3	176.7	174.0	177.7	178.3	177.8	175.0	173.9	173.9	172.1	261.3			
Wrought pipe, welded and heavy-riveted	151.6	150.7	148.1	151.5	160.3	162.4	158.8	165.2	161.9	158.0	164.8	156.3	308.4			
Screw-machine products and wood screws	154.3	154.8	157.6	163.7	165.6	171.9	173.6	174.5	173.9	173.0	173.2	171.6	222.9			
Steel barrels, kegs, and drums	100.5	101.5	102.2	100.7	104.1	104.6	101.4	99.7	102.9	100.1	103.8	104.0	129.1			
Firearms	274.4	271.4	286.7	283.3	282.8	287.0	283.7	286.6	282.8	280.6	284.0	284.3	1321.8			
Electrical machinery	222.8	218.9	215.6	215.0	221.5	213.8	218.7	231.3	232.0	230.8	230.6	227.6	223.4	285.9		
Electrical equipment	171.4	169.1	169.6	174.1	170.3	172.7	175.3	176.0	174.6	174.1	172.0	170.1	254.6			
Radios and phonographs	189.7	184.7	178.3	188.1	196.9	205.4	211.5	212.7	213.3	215.0	210.2	203.4	263.7			
Communication equipment	241.2	240.8	243.0	251.9	210.7	220.3	235.2	287.0	287.6	288.4	287.0	282.0	343.6			
Machinery, except electrical	227.1	224.3	221.7	217.4	224.2	225.9	226.6	225.1	223.5	222.0	219.6	217.7	214.0	244.7		
Machinery and machine-shop products	187.0	185.9	184.5	187.8	189.6	190.8	190.6	190.3	188.8	187.6	186.7	183.0	242.4			
Engines and turbines	231.4	232.1	230.7	231.3	238.3	240.6	244.4	243.8	243.5	244.5	244.5	240.1	368.6			
Tractors	180.5	176.2	180.0	181.9	177.6	176.0	174.8	175.9	175.2	174.2	171.6	171.8	167.5			
Agricultural machinery, excluding tractors	184.5	181.6	176.3	184.9	180.6	177.9	168.6	168.4	165.7	161.0	156.3	152.1	135.7			
Machine tools	141.2	141.6	136.8	145.9	150.5	156.1	158.4	161.1	163.2	165.3	164.6	169.2	299.5			
Machine-tool accessories	167.5	169.0	167.3	178.4	183.4	190.0	194.8	199.2	204.0	204.8	205.9	203.6	351.3			
Textile machinery	168.4	163.8	164.9	176.7	175.3	172.6	171.7	169.5	166.2	161.4	158.5	154.7	130.1			
Pumps and pumping equipment	231.4	229.6	232.6	242.0	243.3	245.8	246.6	245.1	242.7	243.1	240.6	237.0	317.0			
Typewriters	147.6	144.1	88.4	111.7	146.7	144.4	144.0	142.0	139.8	137.2	137.2	131.6	73.8			
Cash registers, adding and calculating machines	211.2	206.0	190.7	191.6	206.9	205.7	202.4	196.8	191.2	189.3	185.2	179.9	177.0			
Washing machines, wringers and driers, domestic	191.7	197.0	193.6	198.6	193.9	190.1	184.5	178.4	169.6	166.8	168.2	160.3	178.8			
Sewing machines, domestic and industrial	152.1	119.3	151.4	136.1	134.4	146.7	144.5	142.1	138.6	136.2	133.6	130.8	136.6			
Refrigerators and refrigeration equipment	222.2	221.2	217.4	222.6	211.4	207.4	201.0	190.8	194.1	185.6	182.6	180.6	154.9			
Transportation equipment, except automobiles	267.2	257.4	250.0	248.9	291.8	293.7	300.8	296.7	297.6	298.4	298.2	292.4	287.8	1580.1		
Locomotives	384.0	375.5	368.0	376.0	367.4	388.0	402.3	416.3	410.9	418.8	419.4	423.6	526.8			
Cars, electric- and steam-railroad	225.8	222.8	224.8	225.9	224.9	226.6	220.3	218.2	208.6	207.2	205.2	197.6	246.5			
Aircraft and parts, excluding aircraft engines	329.1	329.3	326.0	337.4	348.4	357.6	355.8	357.6	362.8	364.8	368.8	360.9	2003.5			
Aircraft engines	298.5	299.9	301.1	302.5	303.4	315.8	314.9	321.8	331.4	326.2	329.8	321.8	2625.7			
Shipbuilding and boatbuilding	137.1	125.5	126.6	202.7	202.7	207.8	202.8	203.3	205.7	206.2	193.2	193.3	1769.4			
Motorcycles, bicycles, and parts	200.0	195.3	186.0	190.8	183.6	184.0	184.0	179.4	175.1	173.6	168.1	165.0	143.7			
Automobiles	197.7	199.2	192.0	195.0	196.2	186.5	200.5	198.2	196.6	187.7	192.3	193.3	192.3	177.5		
Nonferrous metals and their products	173.3	172.1	170.4	168.6	175.1	179.6	184.8	187.5	188.5	186.9	185.8	184.0	182.0	196.0		
Smelting and refining, primary, of nonferrous metals	142.2	142.8	146.3	145.0	143.2	147.6	148.2	148.5	145.5	145.4	142.1	139.9	204.3			
Alloying and rolling and drawing of nonferrous metals except aluminum	135.2	136.1	128.6	147.2	154.0	158.8	160.7	164.0	162.2	161.7	159.7	158.4	195.2			
Clocks and watches	135.7	132.8	121.2	134.6	135.9	138.0	138.5	140.7	139.3	139.1						

TABLE A-6: Indexes of Production-Worker Employment in Manufacturing Industries¹—Continued

[1939 average=100]

Industry group and industry	1947											1946			Annual average
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	
<i>Durable goods—Continued</i>															
Furniture and finished lumber products ²	136.1	133.5	131.9	127.8	129.8	129.5	131.8	134.2	134.5	131.8	129.6	127.7	125.2	111.7	
Mattresses and bedsprings	162.3	153.5	139.2	145.7	145.2	144.8	154.4	153.2	152.3	149.3	153.6	140.7	105.9		
Furniture	131.0	129.4	125.9	127.6	127.0	128.9	131.3	132.1	129.3	127.7	125.6	123.7	112.4		
Wooden boxes, other than cigar	125.7	125.4	123.8	127.6	128.3	128.9	126.6	124.1	123.8	121.1	120.7	118.8	125.0		
Caskets and other morticians' goods	140.6	139.2	137.4	138.1	138.8	140.6	144.3	143.0	142.8	141.0	134.7	124.7	102.4		
Wood preserving	145.5	150.6	149.4	147.9	144.7	144.6	142.1	143.3	140.4	134.0	131.6	131.6	98.7		
Wood, turned and shaped	127.9	128.2	123.0	122.9	124.3	136.2	137.5	140.0	133.0	129.9	124.9	123.1	107.4		
Stone, clay, and glass products ³	146.0	145.5	144.6	140.2	144.0	142.6	146.0	145.3	144.5	144.9	144.4	143.9	143.8	122.5	
Glass and glassware	166.3	165.7	158.5	168.6	171.1	172.2	170.8	167.8	171.9	171.5	172.2	174.0	139.9		
Glass products made from purchased glass	120.1	120.2	123.5	124.3	127.6	132.8	133.7	133.4	131.7	129.3	127.1	123.7	113.1		
Cement	152.1	121.1	146.5	145.0	121.8	145.5	143.3	143.6	143.9	144.6	142.6	141.9	111.5		
Brick, tile, and terra cotta	129.7	129.4	126.3	125.8	124.3	124.5	122.5	121.4	121.3	119.4	119.5	122.1	90.5		
Pottery and related products	165.2	165.9	160.4	164.1	165.6	166.0	166.1	166.2	163.6	162.5	160.0	158.6	132.9		
Gypsum	124.2	123.5	124.2	121.7	115.2	119.6	119.1	123.0	123.9	124.8	124.1	117.2	91.2		
Wallboard, plaster (except gypsum), and mineral wool	149.8	145.3	141.3	137.6	135.9	132.8	133.7	136.4	136.3	136.8	135.7	133.1	137.2		
Lime	97.0	97.0	98.0	98.6	99.3	97.6	95.3	95.3	94.2	93.8	95.2	94.7	98.7		
Marble, granite, slate, and other products	99.9	99.4	90.5	88.9	89.5	96.2	95.6	94.2	91.4	93.6	93.2	92.8	67.4		
Abrasives	223.9	208.8	220.0	242.2	250.4	253.7	260.0	260.3	262.0	260.0	250.0	256.2	302.2		
Asbestos products	132.2	130.1	122.7	130.2	131.3	132.5	134.5	135.0	136.2	136.4	136.0	134.1	138.2		
<i>Nondurable goods</i>															
Textile-mill products and other fiber manufactures	106.4	104.2	102.5	101.2	103.1	104.6	106.9	108.6	109.1	108.6	108.6	107.6	106.2	108.2	
Cotton manufactures, except smallwares	113.6	112.6	112.3	114.5	116.2	118.1	118.7	119.1	118.7	118.4	117.5	116.0	122.9		
Cotton smallwares	90.7	88.9	88.9	92.8	98.8	102.8	106.4	108.4	110.0	109.0	107.5	108.8	123.6		
Silk and rayon goods	76.6	75.3	74.2	75.6	76.7	78.4	79.5	79.6	79.9	79.8	79.1	78.3	79.9		
Woolen and worsted manufactures, except dyeing and finishing	101.6	98.2	95.4	98.3	99.2	102.7	105.9	108.6	109.2	110.2	108.7	107.5	111.9		
Hosiery	70.9	69.9	68.7	67.9	70.4	73.6	75.5	75.5	74.8	74.5	73.9	72.8	73.6		
Knitted cloth	87.1	86.2	82.0	83.5	85.4	89.9	94.4	95.3	95.7	99.6	102.9	102.3	107.7		
Knitted outerwear and knitted gloves	89.4	5.5	83.0	86.2	91.3	97.5	104.4	107.0	108.0	112.7	112.0	109.6	115.0		
Knitted underwear	102.6	101.4	98.2	98.5	97.4	98.4	98.2	96.7	94.9	93.4	92.4	91.3	108.6		
Dyeing and finishing textiles, including woolen and worsted	95.0	93.0	91.9	95.7	96.7	97.8	99.2	99.3	98.7	97.2	96.9	95.9	101.6		
Carpets and rugs, wool	114.0	112.4	110.9	111.2	110.4	109.5	108.8	106.3	104.4	103.1	100.3	97.9	88.3		
Hats, fur-felt	77.6	78.2	75.5	76.9	75.3	70.7	81.7	82.2	81.7	81.7	80.6	79.1	68.9		
Jute goods, except felts	72.0	73.5	101.3	104.6	106.8	106.1	108.0	107.8	105.2	102.3	101.2	106.4	107.5		
Cordage and twine	108.2	109.4	109.0	113.9	116.4	119.8	121.6	123.7	124.0	127.2	125.8	127.2	139.3		
Apparel and other finished textile products ³	149.6	145.6	142.2	131.7	131.7	131.4	135.0	141.9	141.7	138.0	136.6	134.6	134.9	121.4	
Men's clothing, not elsewhere classified	130.4	128.3	121.1	123.9	122.2	123.5	125.2	125.3	123.9	123.1	121.8	117.7	115.8		
Shirts, collars, and nightwear	104.4	101.6	96.9	100.5	98.9	99.1	100.2	99.6	96.5	95.3	93.1	88.2	90.9		
Underwear and neckwear, men's	101.4	97.9	1.0	99.2	102.4	105.9	107.0	108.8	107.9	111.1	109.6	109.0	96.3		
Work shirts	109.6	107.8	99.1	102.1	108.2	111.0	116.9	118.7	115.6	112.8	108.7	106.4	131.3		
Women's clothing, not elsewhere classified	157.5	153.4	139.8	135.9	136.0	142.4	154.5	153.5	147.4	144.8	142.1	146.0	120.6		
Corsets and allied garments	95.8	93.4	90.1	94.2	94.2	93.9	93.1	90.5	89.7	90.1	88.2	86.8	88.1		
Millinery	93.0	92.6	80.4	79.3	79.3	86.4	102.6	101.9	95.0	88.2	79.2	95.1	91.5		
Handkerchiefs	98.3	90.6	82.9	90.8	93.1	94.8	98.4	95.2	91.6	87.1	86.6	87.1	113.1		
Curtains, draperies, and bedspreads	162.6	153.9	130.4	126.9	124.7	125.7	132.5	139.5	144.6	151.6	166.2	169.8	141.9		
Housefurnishings, other than curtains, etc.	274.0	263.5	238.5	256.2	262.0	259.4	257.0	257.0	260.2	265.4	262.6	269.3	214.9		
Textile bags	220.1	216.5	230.0	214.6	220.6	224.3	233.4	235.4	232.7	236.1	228.9	223.9	155.7		
Leather and leather products ⁴	105.6	104.8	103.8	100.6	99.8	99.4	103.0	104.7	104.9	104.4	104.4	102.9	102.2	91.8	
Leather	93.3	91.9	90.7	91.0	91.6	92.6	92.0	92.6	91.6	90.7	86.6	87.9	92.9		
Boot and shoe cut stock and findings	96.6	96.3	94.4	90.1	91.7	97.3	101.3	100.8	101.8	103.0	103.6	101.5	96.0		
Boots and shoes	97.5	96.7	93.9	92.9	92.1	95.6	97.2	97.1	96.4	96.0	94.7	93.7	89.0		
Leather gloves and mittens	128.5	127.6	118.9	121.0	120.4	123.2	126.8	128.3	130.8	137.1	139.5	140.0	153.7		
Trunks and suitcases	161.0	153.1	141.0	147.0	145.8	163.9	164.7	166.5	166.7	176.7	178.1	179.9	161.2		
Food ⁵	146.9	161.1	157.3	143.1	130.3	126.0	125.0	123.5	123.9	128.4	133.3	133.5	127.7	123.5	
Slaughtering and meat packing	134.7	135.5	135.0	130.6	128.0	124.3	127.7	131.9	136.5	133.0	120.9	128.8			
Butter	177.8	188.0	192.7	190.9	185.9	176.4	169.1	165.4	163.0	172.7	178.1	180.6	165.2		
Condensed and evaporated milk	194.5	208.5	216.3	205.7	196.9	186.2	182.6	177.8	174.7	177.2	183.3	182.6			
Ice cream	176.8	185.9	189.4	187.8	170.6	156.9	144.3	138.4	135.4	137.9	140.4	145.7	130.7		
Flour	141.8	142.6	142.0	136.4	133.0	138.7	139.8	139.5	140.1	140.5	140.7	140.3	118.5		
Feeds, prepared	171.2	173.1	171.4	168.0	159.1	162.3	164.8	159.5	161.1	155.9	159.5	159.8	145.0		
Cereal preparations	168.0	163.5	156.5	146.2	142.3	157.0	150.3	150.0	155.5	164.3	165.8	164.9	136.0		
Baking	115.5	114.5	113.7	112.0	111.0	111.4									

TABLE A-6: Indexes of Production-Worker Employment in Manufacturing Industries¹—Continued

[1939 average=100]

Industry group and industry	1947											1946			Annual average
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	
<i>Nondurable goods—Continued</i>															
Paper and allied products ²	145.0	143.5	143.0	140.7	143.4	143.5	145.0	145.9	145.9	145.6	145.7	144.3	141.7	122.2	
Paper and pulp	142.9	142.6	140.9	141.3	140.3	139.6	140.4	140.4	139.6	139.2	137.9	136.2	116.3		
Paper goods, other	152.1	150.3	149.5	153.6	153.4	154.1	153.7	153.5	153.9	153.6	153.4	150.5	133.1		
Envelopes	137.4	136.0	132.7	136.6	137.6	137.6	138.0	137.7	137.0	137.7	135.4	131.1	116.9		
Paper bags	159.2	161.6	160.5	164.0	168.1	174.4	175.8	177.7	180.0	176.9	172.4	168.6	118.0		
Paper boxes	138.5	137.9	133.6	139.9	141.6	146.6	148.2	148.1	148.5	150.4	148.8	144.9	129.3		
Printing, publishing, and allied industries ²	132.0	130.7	129.8	128.8	129.1	128.6	128.5	128.2	128.1	127.2	127.9	126.6	125.0	100.8	
Newspapers and periodicals	121.7	120.5	119.8	119.7	119.0	117.9	116.9	115.7	114.0	115.2	113.7	112.8	95.2		
Printing, book and job	139.1	137.7	138.2	137.8	137.2	138.1	138.4	139.4	139.5	138.3	136.6	135.6	108.7		
Lithographing	123.8	124.0	119.8	123.3	124.6	124.5	124.7	124.9	123.7	124.7	123.6	121.9	98.5		
Bookbinding	148.3	148.9	143.6	145.6	145.3	144.7	143.7	142.6	141.7	143.1	141.1	138.2	114.1		
Chemicals and allied products	198.4	195.2	189.7	189.8	188.5	194.8	196.2	197.5	197.1	195.6	192.5	190.9	187.2	254.5	
Paints, varnishes, and colors	129.8	128.6	127.7	131.6	132.9	132.7	132.4	130.6	129.0	129.2	127.7	127.9	104.8		
Drugs, medicines, and insecticides	188.3	185.6	187.2	190.9	194.4	196.7	198.2	196.9	197.9	196.4	195.4	193.8	166.1		
Perfumes and cosmetics	94.8	90.3	87.1	89.9	89.3	93.5	99.7	103.3	105.6	110.8	120.0	121.8	110.5		
Soap	115.9	112.8	113.1	114.7	112.2	112.4	113.2	111.2	107.1	105.5	101.3	100.8	98.0		
Rayon and allied products	121.8	120.1	120.1	103.6	121.3	120.8	121.0	122.3	122.0	121.3	121.9	119.8	107.9		
Chemicals, not elsewhere classified	177.6	179.2	180.8	182.1	180.3	180.1	179.1	178.6	178.6	176.7	173.3	169.8	167.7		
Explosives and safety fuses	190.5	190.0	176.6	190.9	191.8	192.1	191.0	188.3	184.9	177.4	174.6	178.2	1248.4		
Compressed and liquefied gases	157.2	160.2	156.4	159.6	155.4	152.6	149.7	151.1	147.9	144.0	146.0	133.6	160.2		
Ammunition, small-arms	161.3	102.6	159.4	163.4	161.7	157.6	156.0	155.4	155.9	155.8	159.8	160.9	3614.0		
Fireworks	210.8	175.2	205.3	247.6	253.5	243.8	228.5	231.0	258.9	298.7	305.9	290.2	2434.9		
Cottonseed oil	100.2	71.9	63.6	65.2	72.3	85.3	99.0	108.3	114.1	124.4	134.7	115.3	116.7		
Fertilizers	121.8	114.6	108.6	114.4	136.3	146.2	153.4	148.8	136.6	122.8	117.7	117.1	120.9		
Products of petroleum and coal	182.8	153.4	151.4	153.7	150.8	149.3	145.4	145.9	146.0	145.4	146.1	146.6	146.8	117.6	
Petroleum refining	140.0	141.5	141.4	139.2	137.9	134.0	135.4	135.2	135.0	136.4	136.0	136.2	110.6		
Coke and byproducts	125.3	125.0	125.1	123.2	121.4	119.2	119.1	120.2	117.9	115.3	118.3	118.9	113.6		
Paving materials	97.7	93.5	79.2	73.8	77.1	76.3	72.5	68.2	67.4	67.6	72.5	82.6	64.3		
Roofing materials	163.9	162.7	163.1	157.9	155.3	152.7	150.5	152.9	154.4	155.8	157.2	157.1	119.2		
Rubber products	182.0	178.5	178.2	175.2	180.7	184.5	193.5	196.5	198.2	198.8	200.1	198.8	194.8	160.3	
Rubber tires and inner tubes	200.1	216.6	212.3	217.0	220.0	227.0	231.4	233.3	235.5	237.9	238.3	234.4	166.1		
Rubber boots and shoes	141.6	127.2	135.1	143.9	153.6	158.4	160.1	160.2	156.5	154.8	151.0	144.0	160.5		
Rubber goods, other	157.1	152.8	148.0	153.2	156.3	168.4	170.2	172.6	172.8	173.4	171.3	167.9	154.1		
Miscellaneous industries ³	182.3	177.8	173.5	170.1	174.4	176.3	179.8	182.1	180.9	179.3	183.2	182.0	180.2	181.7	
Instruments (professional and scientific), and fire-control equipment	243.9	242.7	243.1	248.1	244.4	249.9	249.9	250.0	249.2	251.3	239.0	252.3	766.4		
Photographic apparatus	216.1	216.4	217.0	211.3	207.6	204.7	203.2	201.3	200.6	200.2	199.5	198.6	200.9		
Optical instruments and ophthalmic goods	231.6	231.8	234.6	242.7	247.1	249.4	253.2	256.1	257.3	257.1	252.3	250.9	280.3		
Pianos, organs, and parts	194.7	187.2	191.6	195.1	193.5	193.8	196.2	191.4	186.9	170.1	176.5	171.9	156.2		
Games, toys, and dolls	214.4	202.1	188.8	182.0	177.3	176.5	170.6	161.4	156.3	177.0	183.2	176.3	199.7		
Buttons	103.4	101.9	95.4	104.7	109.1	114.8	118.5	120.3	125.6	130.2	126.3	130.5	116.6		
Fire extinguishers	277.6	277.3	284.9	280.0	283.4	291.9	310.6	312.7	294.0	299.5	289.8	281.8	913.1		

¹ See footnote 1, table A-5.² See footnote 2, table A-5.³ Revised.TABLE A-7: Indexes of Production-Worker Pay Rolls (Weekly) in Manufacturing Industries¹

[1939 average=100]

Industry group and industry	1947											1946			Annual average
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	
All manufacturing	341.6	337.2	323.5	314.2	319.6	312.2	310.7	314.1	310.6	307.3	306.2	298.2	292.8	334.4	
Durable goods	379.6	372.8	357.5	350.1	365.9	353.8	349.9	349.9	344.6	340.0	337.3	331.1	328.1	469.5	
Nondurable goods	304.5	302.4	290.4	279.1	274.2	271.5	272.3	279.2	277.4	275.3	275.8	266.0	258.3	202.3	
Durable goods	329.0	325.7	314.4	304.4	316.1	306.7	297.5	294.2	287.9	287.9	276.2	280.8	273.7	311.4	
Blast furnaces, steel works, and rolling mills	252.9	250.4	235.3	247.0	236.2	219.8	212.8	209.3	208.9	193.9	208.7	203.2	222.3		
Gray-iron and semisteel castings	321.9	303.3	313.7	326.3	325.8	317.6	320.0	317.1	317.1	307.8	299.6	294.0	256.7		
Malleable-iron castings	339.4	312.5	314.9	329.2	324.7	313.4	310.0	307.5	302.8	283.8	294.4	292.5	273.4		
Steel castings	326.4	313.2	315.1	321.8	316.6	308.9	304.6	293.0	302.8	315.4	315.5	291.0	484.4		
Cast-iron pipe and fittings	292.7	281.5	292.3	310.7	309.7	281.7	287.5	282.1	286.7	259.9	262.4	253.5	174.2		
Tin cans and other tinware	343.3	331.1	294.7	263.7	250.4	248.5	243.3	238.7	242.8	244.5	232.6	248.8	161.6		
Wire drawn from purchased rods	256.2	251.5	238.1	263.7	219.3	247.6	237.1	241.1	247.7	239.6	240.7	231.3	255.3		
Wirework	287.2	298.8	270.8	270.3	255.5	270.5	279.8	254.9	273.8	261.7	261.7	265.1	202.6	</td	

TABLE A-7: Indexes of Production-Worker Pay Rolls (Weekly) in Manufacturing Industries¹—Continued

[1939 average=100]

Industry group and industry	1947												1946				Annual average
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943			
Durable goods—Continued																	
Iron and steel and their products—Continued																	
Tools (except edge tools, machine tools, files, and saws)	343.6	325.9	315.0	347.7	340.0	361.4	362.8	355.6	361.3	360.8	348.8	355.8	334.1				
Hardware	304.6	288.5	297.2	304.8	306.3	301.2	300.2	298.6	291.9	286.2	281.5	278.3	245.8				
Plumbers' supplies	230.6	220.7	231.2	231.7	230.1	238.3	234.7	229.6	237.6	226.7	216.2	173.2	158.6				
Stoves, oil burners, and heating equipment not elsewhere classified	313.8	280.9	274.9	282.6	279.4	276.8	281.8	274.0	277.9	264.8	265.0	258.9	206.9				
Steam and hot-water heating apparatus and steam fittings	311.1	289.2	295.9	321.0	312.7	327.0	336.2	331.8	331.2	312.7	328.4	325.5	353.8				
Stamped and enameled ware and galvanizing	344.6	327.6	318.6	325.8	329.1	323.5	325.0	313.9	318.3	320.9	303.2	300.7	300.6				
Fabricated structural and ornamental metal-work	334.8	335.5	317.0	325.5	315.2	307.2	305.8	293.2	287.9	293.0	275.3	273.9	364.3				
Metal doors, sash, frames, molding, and trim	285.3	271.3	242.2	*252.2	247.0	254.3	263.0	253.4	253.8	257.4	250.2	247.9	292.6				
Bolts, nuts, washers, and rivets	290.8	291.3	281.5	303.7	302.3	289.5	284.5	287.2	277.4	272.9	270.3	253.9	374.5				
Forgings, iron and steel	350.3	331.3	337.8	359.9	346.2	350.3	356.2	351.7	341.0	333.2	323.6	318.6	497.6				
Wrought pipe, welded and heavy-riveted	296.9	291.3	297.7	300.5	302.7	290.5	289.9	293.6	292.9	285.8	295.5	261.9	578.5				
Screw-machine products and wood screws	326.1	317.9	327.8	345.5	346.1	355.5	362.7	354.8	355.0	351.3	349.6	349.0	548.0				
Steel barrels, kegs, and drums	257.6	251.6	251.6	215.2	251.4	249.8	240.7	237.0	232.4	231.9	237.2	223.0	242.3				
Firearms	605.7	581.1	615.2	616.9	604.5	594.6	598.0	584.2	573.5	568.0	569.9	553.2	2881.7				
Electrical machinery	455.9	442.2	420.3	422.3	432.6	407.1	396.6	429.6	422.9	425.6	430.2	416.0	408.1	488.0			
Electrical equipment	344.4	330.4	333.0	343.8	327.8	317.0	322.3	315.2	317.2	317.0	308.3	303.7	444.7				
Radios and phonographs	419.8	385.0	386.4	390.1	413.0	409.1	419.7	415.7	422.3	447.7	427.3	408.5	472.3				
Communication equipment	459.3	438.5	437.0	445.0	349.3	350.0	524.3	528.1	530.3	535.8	521.3	521.5	503.1				
Machinery, except electrical	448.2	442.6	424.8	419.2	434.6	429.5	423.0	416.6	409.6	406.6	399.9	390.1	388.0	443.7			
Machinery and machine-shop products	372.0	360.2	356.1	367.9	362.6	357.6	354.9	352.0	350.3	346.7	336.8	333.5	430.9				
Engines and turbines	507.3	513.1	493.6	502.7	502.2	495.4	497.5	493.1	491.7	500.8	492.4	481.7	758.3				
Tractors	316.4	301.4	311.2	310.2	302.8	288.3	277.2	273.6	273.3	271.3	269.9	260.0	256.7				
Agricultural machinery, excluding tractors	387.3	370.1	361.5	371.9	344.3	333.2	312.5	308.3	294.9	291.1	280.7	277.2	266.0				
Machine tools	254.2	250.8	239.9	262.6	263.6	269.7	275.6	278.9	282.7	290.7	285.5	291.9	503.9				
Machine-tool accessories	293.5	280.3	282.3	305.4	311.6	320.4	326.7	332.5	342.7	351.0	343.4	343.3	577.8				
Textile machinery	364.9	332.2	349.6	370.9	363.7	351.8	353.2	347.3	337.3	321.7	301.1	298.3	230.1				
Pumps and pumping equipment	488.0	475.1	479.2	494.4	490.7	485.2	489.6	485.3	466.5	467.8	451.1	452.8	648.8				
Typewriters	317.6	306.2	185.1	*235.3	309.1	295.4	287.7	282.6	276.2	270.1	270.0	261.6	143.8				
Cash registers, adding and calculating machines	436.4	400.7	374.4	394.2	417.3	415.5	401.1	388.5	355.7	347.2	352.0	336.0	341.6				
Washing machines, wringers and driers, domestic	378.8	382.3	391.7	404.2	392.7	377.5	355.6	323.5	326.8	306.2	291.7	361.2	301.8				
Sewing machines, domestic and industrial	343.9	251.7	327.8	297.4	280.2	296.0	296.0	287.6	278.1	273.0	260.5	255.0	282.3				
Refrigerators and refrigeration equipment	421.3	404.1	422.1	427.5	394.5	387.9	359.4	325.0	345.7	306.4	301.9	311.4	264.5				
Transportation equipment, except automobiles	535.2	501.5	482.9	483.0	560.3	561.3	565.3	556.9	558.2	562.6	571.2	531.1	542.3	3080.3			
Locomotives	865.5	809.9	760.3	774.7	757.0	705.4	723.7	827.2	797.2	876.0	836.8	895.6	1107.3				
Cars, electric- and steam-railroad	465.9	436.3	482.1	471.1	465.2	457.7	446.0	440.2	411.2	408.4	406.6	386.2	457.9				
Aircraft and parts, excluding aircraft engines	624.4	637.6	622.4	621.5	639.2	657.2	662.2	667.8	668.7	683.3	680.4	681.3	3496.3				
Aircraft engines	501.8	486.7	485.1	481.5	477.0	487.6	479.9	506.8	525.0	533.7	484.3	530.2	4528.7				
Shipbuilding and boatbuilding	266.5	242.2	243.1	394.3	395.6	399.1	386.0	377.9	395.8	399.1	326.8	353.7	3504.7				
Motorcycles, bicycles, and parts	402.3	392.8	379.4	383.6	363.1	349.0	349.5	327.6	318.5	346.7	318.4	317.5	253.6				
Automobiles	380.3	376.8	343.8	348.8	357.0	329.0	343.4	347.7	337.3	321.1	328.9	325.7	324.3	321.2			
Nonferrous metals and their products	353.2	344.4	330.7	326.6	346.2	349.0	354.0	359.0	360.6	354.8	356.3	345.3	338.8	354.6			
Smelting and refining, primary, of nonferrous metals	208.7	289.2	296.5	296.3	285.4	282.7	281.9	278.9	269.7	271.2	266.8	250.6	363.9				
Alloying and rolling and drawing of nonferrous metals except aluminum	254.4	248.1	260.1	279.7	283.4	294.6	290.4	297.0	307.0	301.4	301.9	290.0	296.6	353.4			
Clocks and watches	307.5	289.8	261.8	299.5	296.0	299.1	301.1	306.2	296.0	306.3	309.6	301.6	238.4				
Jewelry (precious metals) and jewelers' findings	233.7	208.8	193.3	212.4	215.4	220.2	222.8	233.9	236.8	250.5	231.0	235.5	165.1				
Silverware and plated ware	314.7	287.6	281.0	290.4	287.4	284.1	286.5	279.5	279.2	275.8	261.4	257.5	165.4				
Lighting equipment	278.5	271.2	273.2	*203.7	*300.5	283.6	288.9	297.5	285.7	272.5	271.2	264.6	207.2				
Aluminum manufactures	321.5	308.3	298.7	327.0	348.1	369.1	382.9	375.0	381.8	384.5	373.7	362.0	591.6				
Sheet-metal work, not elsewhere classified	284.8	287.5	276.2	282.0	278.7	274.6	273.4	275.3	277.4	281.9	278.0	280.8	277.7				
Lumber and timber basic products ⁴	385.5	385.7	387.3	359.8	374.9	351.4	323.4	310.1	310.7	292.4	290.6	284.7	290.0	215.1			
Sawmills and logging camps	425.8	430.4	397.4	412.2	384.7	350.5	334.5	333.4	309.2	306.9	305.7	315.0	238.3				
Planing and plywood mills	370.3	362.9	345.1	366.5	350.5	333.9	323.3	318.9	311.5	308.6	291.3	294.8	197.8				
Furniture and finished lumber products ⁵	318.5	305.0	293.3	281.4	290.4	285.1	286.8	292.0	292.0	283.1	279.1	268.5	264.2	183.9			
Mattresses and bedsprings	356.0	323.0	287.3	201.6	282.0	281.7	303.6	306.8	308.4	306.9	305.8	297.2	165.7				
Furniture	297.9	284.7	274.4	284.7	278.9	282.2	288.8	289.1	278.8	273.4	263.7	260.1	185.3				
Wooden boxes, other than cigar	305.3	305.4	301.8	313.4	304.0	298.4	294.7	281.0	278.5	279.7	266.3	267.8	215.8				
Caskets and other morticians' goods	283.4	271.6	260.6	275.8	278.0	2											

TABLE A-7: Indexes of Production-Worker Pay Rolls(Weekly) in Manufacturing Industries¹—Continued
[1939 average=100]

Industry group and industry	1947												1946			Annual average
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943		
<i>Durable goods—Continued</i>																
Stone, clay, and glass products ² —Continued																
Gypsum	258.3	260.4	260.2	243.6	228.4	230.6	235.9	239.3	244.0	245.1	241.5	233.2	151.7			
Wallboard, plaster (except gypsum), and mineral wool	358.6	353.9	333.6	327.6	315.6	305.9	296.0	308.3	291.0	300.1	290.1	281.7	223.8			
Lime	245.5	243.3	237.7	244.6	239.2	231.5	223.1	217.6	210.2	219.7	221.4	218.3	171.6			
Marble, granite, slate, and other products	180.9	176.4	156.7	155.3	158.7	166.7	164.8	158.3	153.1	158.0	151.5	155.8	90.8			
Abrasives	430.1	375.6	380.0	413.8	440.6	442.6	462.4	450.9	482.9	459.9	440.8	407.8	480.2			
Asbestos products	304.2	306.8	293.2	305.2	299.8	301.4	308.2	307.6	305.6	300.0	293.4	287.5	254.6			
<i>Nondurable goods</i>																
Textile-mill products and other fiber manufactures	264.9	256.4	239.8	237.5	242.5	248.3	255.4	265.0	262.0	254.3	253.7	246.0	241.1	178.9		
Cotton manufactures, except smallwares	302.2	291.4	288.7	293.5	307.2	314.8	322.0	309.1	304.4	301.2	293.5	285.4	210.8			
Cotton smallwares	200.7	188.4	191.4	195.8	212.6	221.5	232.8	237.3	239.3	231.9	220.6	228.7	209.5			
Silk and rayon goods	206.6	195.8	190.8	193.8	200.4	200.9	208.8	206.9	201.3	197.9	191.4	189.3	134.5			
Woolen and worsted manufactures, except dyeing and finishing	254.9	221.9	231.1	240.2	240.5	248.3	262.0	275.0	251.8	253.0	242.7	243.7	202.2			
Hosiery	151.5	144.4	135.3	130.8	139.6	145.9	158.2	157.9	156.1	158.2	154.5	150.4	107.7			
Knitted cloth	189.9	186.7	176.5	180.4	188.7	195.5	205.5	207.1	198.5	207.1	217.4	217.1	172.3			
Knitted outerwear and knitted gloves	199.4	182.9	172.7	182.8	195.6	209.7	231.7	237.8	238.3	250.4	252.2	243.9	189.4			
Knitted underwear	250.8	236.0	229.7	232.4	232.1	228.3	230.9	223.0	215.5	216.1	207.9	203.9	180.2			
Dyeing and finishing textiles, including woolen and worsted	217.8	201.1	195.1	211.4	211.2	215.2	218.3	217.2	215.3	210.4	201.6	195.2	185.3			
Carpets and rugs, wool	257.4	231.3	239.3	238.3	231.3	226.5	222.4	214.5	210.6	214.3	204.0	196.2	141.2			
Hats, fur-felt	160.5	155.3	155.8	163.3	153.3	145.4	175.0	178.0	180.5	191.0	185.2	182.0	117.6			
Jute goods, except felts	153.7	152.2	184.8	244.7	256.0	247.2	255.4	255.9	240.1	230.4	228.6	239.4	190.9			
Cordage and twine	242.7	240.4	237.5	244.4	255.4	270.2	272.7	273.6	271.8	278.4	268.0	268.5	233.3			
Apparel and other finished textile products ²	330.0	318.5	302.3	278.9	274.9	272.1	279.8	317.7	314.1	300.6	292.7	283.2	283.6	185.2		
Men's clothing, not elsewhere classified	284.9	264.8	260.0	273.0	270.5	267.1	281.3	280.8	277.2	278.4	271.9	246.2	174.9			
Shirts, collars, and nightwear	243.2	225.5	219.3	229.0	228.8	227.3	233.7	234.0	225.9	230.3	217.7	195.6	143.6			
Underwear and hosiery, men's	246.6	236.3	230.8	248.3	249.9	256.8	275.6	274.1	270.8	280.2	285.7	272.4	166.5			
Workshirts	263.0	256.3	241.4	237.5	233.6	257.7	274.3	283.9	273.7	280.2	262.0	236.7	220.4			
Women's clothing, not elsewhere classified	334.2	322.6	283.1	264.1	260.3	277.7	340.0	344.8	322.3	296.3	284.9	311.8	184.4			
Corsets and allied garments	203.1	192.3	187.4	200.4	198.0	197.8	196.6	191.2	183.5	186.6	182.8	177.1	137.1			
Millinery	172.6	170.8	146.9	128.4	119.2	137.7	197.2	201.9	169.6	140.4	117.2	168.3	123.3			
Handkerchiefs	239.4	210.6	196.7	207.4	221.7	212.2	228.0	221.4	201.4	220.4	204.5	193.8	184.0			
Curtains, draperies, and bedspreads	374.0	334.7	283.9	253.9	257.4	252.9	285.2	298.7	310.7	330.0	368.1	375.1	230.2			
Housefurnishings, other than curtains, etc.	604.6	573.5	496.7	553.4	560.8	530.1	515.8	518.2	522.0	545.6	543.1	512.6	370.3			
Textile bags	458.8	443.6	438.2	422.4	427.8	449.9	459.5	467.8	473.1	404.0	432.3	419.6	233.0			
Leather and leather products ¹	234.9	231.6	220.4	214.2	211.5	207.0	214.6	222.2	223.0	220.8	218.3	201.6	199.5	154.2		
Leather	108.5	189.8	187.2	185.2	183.7	183.7	185.2	185.8	179.4	174.5	160.1	158.4	140.6			
Boot and shoe cut stock and findings	100.9	189.8	182.4	172.9	170.0	179.2	190.5	189.1	192.0	191.8	183.5	182.4	142.2			
Boots and shoes	221.5	209.9	204.8	201.7	197.0	205.3	213.7	214.2	212.8	209.3	190.8	188.2	142.0			
Leather gloves and mittens	254.7	244.3	227.2	226.9	223.4	227.1	236.2	238.2	248.4	261.0	272.2	260.1	239.4			
Trunks and suitcases	334.8	300.1	274.3	298.1	281.6	312.7	320.9	327.6	321.3	333.1	348.3	353.2	240.3			
Food ¹	308.8	331.6	325.6	295.8	267.8	252.8	243.1	239.3	242.5	256.4	263.3	252.0	232.2	180.9		
Slaughtering and meat packing	271.9	270.0	280.9	259.9	249.4	227.2	232.6	254.0	285.7	252.0	226.1	108.6	188.6			
Butter	366.5	391.3	387.7	371.5	365.6	342.7	323.5	314.7	309.4	325.9	318.4	334.0	231.0			
Condensed and evaporated milk	419.8	446.0	470.6	474.1	440.9	410.8	380.2	369.0	356.4	337.5	331.9	345.1	268.5			
Ice cream	326.2	346.0	343.7	335.0	295.9	272.0	251.7	243.0	240.4	245.0	239.9	253.8	170.6			
Flour	339.9	339.6	326.1	302.4	274.8	289.0	208.9	293.5	305.4	303.7	288.8	291.3	182.9			
Feeds, prepared	382.9	364.1	366.8	359.5	326.7	323.7	349.3	317.0	323.4	302.2	308.3	304.6	230.0			
Cereal preparations	337.5	361.2	329.9	290.9	277.5	296.8	294.7	288.6	295.6	307.9	306.2	312.1	223.3			
Baking	223.2	218.4	218.0	213.1	208.4	203.4	200.7	201.7	207.8	215.6	205.3	196.7	153.0			
Sugar refining, cane	281.7	284.2	275.0	279.2	229.4	239.3	208.1	177.8	184.2	220.1	162.3	135.5	152.8			
Sugar, beet	220.6	189.0	131.3	118.6	99.6	86.1	94.7	100.0	170.8	366.9	470.3	344.1	119.6			
Confectionery	270.5	232.8	211.4	229.0	232.0	233.4	233.6	229.0	227.5	241.3	225.7	214.0	157.6			
Beverages, nonalcoholic	293.3	298.0	257.4	226.1	203.9	191.3	176.9	174.1	175.1	179.5	172.7	172.3	163.2			
Malt liquors	370.3	365.1	349.6	318.6	287.8	266.6	256.2	249.2	251.0	267.3	250.2	251.4	180.5			
Canning and preserving	676.8	653.7	401.8	249.3	217.8	211.7	197.4	207.2	236.6	302.5	311.5	452.6	216.0			
Tobacco manufactures	214.5	204.9	203.0	200.0	194.8	182.8	181.6	193.1	201.0	200.4	222.0	212.7	207.4	151.0		
Cigarettes	243.7	248.5	253.7	239.6	220.9	218.4	226.8	233.6	241.5	254.7	247.1	238.9	172.0			
Cigars	179.8	173.5	163.4	168.0	163.9	160.3	176.3	182.2	195.2	206.7	194.3	191.7	139.7			
Tobacco (chewing and smoking) and snuff	167.5	164.2	147.7	125.7	139.4	144.4	144.0	155.8	166.8	166.7	160.0	131.1				
Paper and allied products ²	315.4	308.5	300.6	298.7	298.0	291.1	290.9	298.1	288.1	285.1	2					

TABLE A-7: Indexes of Production-Worker Pay Rolls Weekly in Manufacturing Industries¹—Continued

Industry group and industry	1947											1946			Annual average
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	
Nondurable goods—Continued															
Chemicals and allied products.....	400.5	395.1	380.4	378.7	373.3	381.5	378.3	377.5	372.6	362.9	357.0	345.0	335.3	422.5	
Paints, varnishes, and colors.....	233.2	232.0	229.1	233.9	234.1	231.7	230.6	222.0	216.4	214.7	208.2	204.8	152.9		
Drugs, medicines, and insecticides.....	374.9	362.5	347.6	354.6	358.7	359.8	362.9	362.7	352.8	351.3	341.9	331.9	233.4		
Perfumes and cosmetics.....	175.1	163.6	159.3	168.9	166.1	171.3	185.0	188.3	190.3	203.2	215.5	212.7	147.0		
Soap.....	252.0	233.4	223.3	232.2	217.2	215.9	214.8	208.3	199.2	195.7	170.8	169.0	146.1		
Rayon and allied products.....	246.8	239.9	238.2	238.2	205.3	239.0	239.2	236.4	236.0	219.7	216.3	215.2	209.8	162.5	
Chemicals, not elsewhere classified.....	336.2	336.8	341.8	338.9	334.9	329.5	326.8	323.5	321.0	313.4	301.3	294.0	273.5		
Explosives and safety fuses.....	356.6	353.4	324.9	341.1	333.8	310.6	315.3	307.9	320.3	299.2	282.7	292.4	1918.5		
Compressed and liquefied gases.....	287.5	283.5	277.3	284.7	269.5	265.9	253.9	258.4	248.1	217.4	242.5	220.0	264.3		
Ammunition, small-arms.....	376.3	204.2	355.7	358.9	351.7	336.4	333.2	334.1	332.3	326.7	332.3	326.2	6769.3		
Fireworks.....	568.7	441.6	528.1	685.3	686.6	715.6	628.4	623.7	661.1	788.6	824.6	778.4	5081.9		
Cottonseed oil.....	263.6	185.4	162.1	169.0	184.7	208.8	253.9	280.7	295.0	326.8	341.3	277.7	201.5		
Fertilizers.....	335.1	304.6	288.0	301.8	365.0	381.0	385.0	360.6	327.6	304.9	276.6	280.4	225.0		
Products of petroleum and coal.....	297.9	302.4	297.2	295.6	286.2	275.7	265.2	262.1	256.8	253.9	250.9	252.6	252.7	184.3	
Petroleum refining.....	266.4	262.2	265.4	253.8	243.8	236.8	234.9	228.8	227.5	230.2	226.9	228.2	172.3		
Coke and byproducts.....	267.4	263.6	248.3	256.2	248.0	230.6	229.3	230.5	222.6	196.7	216.2	215.8	177.4		
Paving materials.....	218.9	197.6	169.5	159.0	147.6	144.2	121.4	114.5	116.1	129.6	135.0	150.5	107.0		
Roofing materials.....	360.3	363.7	357.7	339.5	336.3	323.4	312.8	314.0	313.5	309.8	313.8	303.5	197.2		
Rubber products ¹	375.6	368.6	357.0	352.7	361.9	367.2	383.9	374.3	385.0	386.3	392.2	377.4	361.3	263.9	
Rubber tires and inner tubes.....	398.0	397.0	393.8	396.1	399.3	414.2	397.3	413.3	416.3	425.3	414.7	397.6	265.7		
Rubber boots and shoes.....	314.4	268.4	290.0	317.1	331.2	333.3	321.7	328.5	322.5	318.0	295.4	249.6	268.8		
Rubber goods, other.....	335.6	318.9	304.9	320.1	325.5	348.4	348.7	354.4	354.5	359.9	340.4	335.3	255.8		
Miscellaneous industries ¹	383.4	368.1	347.5	341.2	355.4	356.6	361.0	367.6	360.0	356.7	363.3	354.0	350.7	322.7	
Instruments (professional and scientific), and fire-control equipment.....	464.9	457.9	453.3	468.3	441.2	454.0	452.3	448.8	451.2	456.3	422.1	448.6	1356.9		
Photographic apparatus.....	397.5	388.3	385.9	392.2	383.0	376.2	375.0	343.0	348.0	345.2	344.2	333.7	311.5		
Optical instruments and ophthalmic goods.....	442.3	426.5	433.7	462.8	461.0	449.4	461.8	459.7	472.2	472.3	458.0	420.4	439.0		
Pianos, organs, and parts.....	431.4	384.8	402.7	417.5	418.5	408.1	412.3	416.1	407.7	330.4	367.2	339.1	295.1		
Games, toys, and dolls.....	482.2	431.4	410.1	395.0	386.1	380.9	372.1	339.0	323.5	380.2	405.3	378.8	169.7		
Buttons.....	230.2	220.7	209.2	228.3	234.7	247.3	261.2	270.8	278.0	294.2	287.1	285.6	204.1		
Fire extinguishers.....	558.9	583.7	600.0	586.5	552.1	527.1	565.7	582.9	582.9	598.1	586.4	562.3	1622.9		

¹ See footnote 1 table-A-5.² See footnote 2 table-A-5.

*Revised.

TABLE A-8: Estimated Number of Employees in Selected Nonmanufacturing Industries¹

(In thousands)

Industry group and industry	1947											1946			Annual average
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1943	1939
Mining:															
Anthracite.....	67.0	66.9	67.5	65.2	66.5	67.1	66.4	67.7	68.7	69.1	68.7	68.7	68.9	71.2	82.8
Bituminous coal.....	333	331	328	304	329	326	308	332	335	336	326	334	334	386	371
Metal:															
Iron.....	77.5	77.9	79.0	78.6	79.8	78.9	79.0	78.2	77.3	76.9	76.0	75.2	74.1	96.4	88.2
Copper.....	29.6	29.7	29.8	29.8	29.6	29.0	28.4	28.4	27.3	26.4	26.6	27.5	27.8	32.2	20.1
Lead and zinc.....	24.3	24.3	24.2	24.3	24.3	23.9	24.2	24.2	24.2	23.9	23.3	22.5	21.8	31.4	23.8
Gold and silver.....	13.8	13.9	14.8	14.6	16.0	16.0	16.2	16.5	16.6	16.5	16.1	15.5	15.0	19.0	15.5
Miscellaneous.....	7.6	7.8	7.8	7.7	7.6	7.8	7.9	8.0	7.9	7.7	7.6	7.3	7.2	7.8	24.8
Transportation and public utilities:															
Class I steam railways ² :	1,350	1,364	1,382	1,383	1,375	1,365	1,345	1,325	1,324	1,332	1,353	1,382	1,376	1,355	988
Street railways and busses ² :	249	251	253	254	253	254	254	254	254	252	253	252	227	194	
Telephone.....	609	607	616	614	605	504	404	599	594	588	586	583	577	402	318
Telegraph ² :	36.9	37.6	37.8	38.2	38.5	38.7	39.3	37.9	38.3	39.4	40.4	40.9	41.5	46.0	37.6
Electric light and power.....	267	268	269	267	263	268	254	254	252	250	252	249	211	244	
Service:															
Hotels (year-round).....	380	379	379	382	385	382	370	378	380	378	384	388	389	344	323
Power laundries ²	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	260	226	
Cleaning and dyeing ²	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	80.7	67.5	

¹ Includes all employees unless otherwise noted. Data for the two most recent months are subject to revision without notation. Revised data for earlier months are identified by an asterisk.² Includes production and related workers only.³ Includes all employees at middle of month. Excludes employees of switching and terminal companies. Class I steam railways include those with over \$1,000,000 annual revenue. Source: Interstate Commerce Commission.⁴ Includes private and municipal street railway companies and affiliated, subsidiary, or successor trolley-bus and motor-bus companies.⁵ Includes all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.⁶ The change in definition from "wage earner" to "production worker" in the power laundries and cleaning and dyeing industries results in the omission of driver-salesmen. This causes a significant difference in the data. New series are being prepared.

TABLE A-9: Indexes of Employment in Selected Nonmanufacturing Industries¹

[1939 average=100]

Industry group and industry	1947											1946			Annual average 1943
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.		
Mining:															
Anthracite	80.9	80.7	81.4	78.7	80.3	81.1	80.1	81.8	82.9	83.4	83.0	82.9	83.2	86.0	1939
Bituminous coal	89.9	89.2	88.4	82.1	88.7	88.1	83.0	89.7	90.4	90.8	88.1	90.0	90.1	104.1	1943
Metal	87.9	88.3	89.5	89.1	90.4	89.4	89.6	88.6	87.6	87.2	86.2	85.2	83.9	109.3	1946
Iron	147.0	147.3	148.3	148.0	147.2	143.8	141.3	135.5	131.5	131.4	132.4	136.1	138.7	160.2	1947
Copper	102.0	101.8	101.7	101.8	101.8	100.2	101.5	104.6	101.5	100.4	97.8	94.6	91.2	131.8	1946
Lead and zinc	88.9	89.6	95.1	93.8	102.9	102.9	104.4	106.1	106.9	106.4	103.4	99.4	96.3	122.1	1947
Gold and silver	30.8	31.4	31.6	31.1	30.6	31.4	31.9	32.2	31.7	31.3	30.7	29.6	28.9	29.4	1946
Miscellaneous	55.7	56.6	57.9	57.7	58.0	56.5	57.0	56.9	55.2	54.7	59.6	60.9	59.2	164.9	1947
Quarrying and nonmetallic	104.5	105.4	106.3	106.0	105.7	104.3	103.1	98.7	97.1	96.9	99.7	101.2	101.7	96.2	1946
Crude petroleum production ²	94.5	95.6	97.3	97.2	95.5	93.3	92.6	92.0	91.7	92.1	92.6	93.0	93.4	81.8	1947
Transportation and public utilities:															
Class I steam railways ³	137.6	138.1	140.0	140.0	139.2	138.2	136.1	134.2	134.0	134.9	136.9	139.9	139.3	137.2	1939
Street railways and busses ⁴	128.8	129.6	130.7	130.9	130.4	130.7	130.9	131.0	131.1	130.9	130.1	130.6	130.3	117.0	1943
Telephone	191.6	191.1	193.8	193.3	190.4	189.2	127.2	188.4	186.9	185.2	184.6	183.4	181.6	126.7	1946
Telegraph ⁵	98.1	99.8	100.5	101.5	102.3	102.8	104.5	100.7	101.8	104.6	107.4	108.7	110.3	124.7	1947
Electric light and power	109.4	109.9	110.2	109.3	107.5	105.7	104.8	104.0	103.2	102.5	103.0	102.5	102.0	86.3	1946
Trade: ⁶															
Wholesale	115.5	113.3	112.2	111.1	110.5	109.7	110.5	111.7	111.9	112.2	114.4	112.7	110.7	95.9	1939
Retail	115.7	112.3	109.3	110.2	111.4	111.3	111.5	111.2	109.6	110.5	126.5	117.4	112.2	99.9	1943
Food	115.0	112.6	111.5	113.0	113.7	113.9	113.7	112.8	111.2	108.5	111.9	108.6	103.7	106.2	1946
General merchandise	131.3	122.6	115.7	116.7	120.6	121.2	122.9	122.5	119.5	125.6	171.0	145.2	132.4	116.9	1947
Apparel	119.1	113.4	103.4	106.8	115.0	114.3	114.7	113.4	107.9	110.0	135.5	124.1	120.1	110.1	1946
Furniture and housefurnishings	89.5	87.5	85.8	86.0	85.1	84.6	84.6	84.4	84.3	84.3	90.4	85.5	83.1	67.7	1939
Automotive	105.6	104.8	105.1	104.2	100.6	99.4	98.7	97.8	98.2	98.3	100.2	98.4	96.6	63.0	1943
Lumber and building materials	126.9	124.6	123.1	121.4	119.4	117.5	116.3	115.5	113.9	113.4	116.1	115.1	113.6	91.5	1946
Service:															
Hotels (year-round)	117.7	117.4	117.6	118.3	119.4	118.4	117.5	117.3	117.7	117.3	119.1	120.2	120.6	106.6	1946
Power laundries	108.5	109.6	110.2	112.8	112.2	110.2	109.1	108.7	109.5	111.0	110.9	109.9	110.1	115.3	1947
Cleaning and dyeing	120.0	118.6	117.4	123.4	127.7	123.7	121.5	118.8	117.0	118.2	120.9	123.0	126.1	119.6	1947

¹ See footnote 1, table A-8.² Does not include well drilling or rig building.³ See footnote 3, table A-8.⁴ See footnote 4, table A-8.⁵ See footnote 5, table A-8.⁶ Includes nonsupervisory workers and working supervisors only.TABLE A-10: Indexes of Pay Rolls (Weekly) in Selected Nonmanufacturing Industries¹

[1939 average=100]

Industry group and industry	1947											1946			Annual average 1943
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.		
Mining:															
Anthracite	224.1	211.1	216.6	177.8	194.6	180.3	155.5	206.2	184.7	202.0	212.3	182.3	199.9	133.9	1939
Bituminous coal	275.2	270.2	264.4	192.9	252.3	244.6	189.8	245.6	248.7	265.4	258.3	233.1	237.1	187.7	1943
Metal	179.5	179.0	178.3	171.9	181.8	172.1	164.7	162.6	162.0	166.8	159.3	146.9	148.0	166.9	1946
Iron	303.0	298.7	300.7	295.4	309.4	284.7	254.1	246.7	240.3	229.4	239.7	238.6	252.4	247.0	1947
Copper	220.8	223.2	217.0	209.6	214.1	201.8	197.3	196.8	198.0	193.6	192.2	170.0	167.1	212.5	1946
Lead and zinc	206.0	203.6	207.8	198.0	228.1	223.3	224.7	222.2	226.2	221.7	220.1	192.1	188.5	209.0	1947
Gold and silver	51.6	52.0	51.7	46.8	49.5	49.3	50.5	50.7	51.0	48.3	49.8	44.5	43.0	36.9	1946
Miscellaneous	101.9	102.5	104.6	99.1	100.3	95.8	92.1	92.1	85.3	85.5	93.3	99.9	99.9	250.8	1947
Quarrying and nonmetallic	261.2	258.5	259.6	251.2	251.3	241.7	233.2	213.7	205.6	204.8	221.9	222.4	227.6	162.2	1946
Crude petroleum production ²	169.9	175.6	173.5	173.9	175.3	163.4	162.3	154.5	152.9	153.8	147.1	151.0	150.1	115.9	1947
Transportation and public utilities:															
Class I steam railways	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1939
Street railways and busses ⁴	223.2	224.1	225.2	222.1	222.1	220.0	218.8	218.6	219.5	216.1	213.6	210.9	212.6	155.7	1943
Telephone	314.2	309.6	306.2	302.2	292.5	202.9	136.1	267.2	269.4	267.5	264.5	273.0	260.2	144.9	1946
Telegraph ⁵	208.1	211.8	213.5	215.2	218.8	226.9	239.3	198.0	201.5	189.1	190.5	194.2	201.7	159.3	1947
Electric light and power	182.8	183.1	182.9	178.4	177.5	168.2	166.5	160.8	163.7	159.5	161.6	157.6	155.3	109.2	1946
Trade: ⁶															
Wholesale	206.9	203.3	196.2	196.5	198.0	191.4	190.8	191.6	190.4	189.7	197.2	189.7	184.5	127.0	1939
Retail	206.9	202.5	197.7	198.5	201.6	195.3	192.9	190.1	187.5	187.2	212.2	191.7	182.5	120.6	1943
Food	213.8	209.3	212.2	213.8	212.1	206.0	202.8	199.9	197.1	189.4	194.6	185.7	174.6	129.2	1946
General merchandise	224.5	219.8	212.0	214.1	218.9	212.3	210.4	205.6	201.4	208.4	272.2	225.0	204.8	135.9	1947
Apparel	213.1	203.4	183.4	192.0	207.4	200.9	200.7	194.6	184.1	188.2	230.2	207.6	201.5	133.9	1946
Furniture and housefurnishings	167.6	159.8	155.4	155.8	157.4	151.9	148.1	146.6	143.8	144.1	165.7	148.6	139.8	86.5	1947
Automotive	193.8	188.5	188.5	184.8	184.3	177.7	175.2	171.7	172.7	170.4	178.8	169.3	166.0	84.7	1946
Lumber and building materials	238.														

TABLE A-11: Total Federal Employment by Branch and Agency Group¹

Year and month	All branches	Executive ²				Legislative	Judicial	Government corporations ³
		Total	Defense agencies ⁴	Post Office Department ⁵	All other agencies			
All areas (including outside continental United States)								
1939	968,572	935,469	207,978	319,474	408,017	5,373	2,260	25,470
1943	3,183,235	3,138,838	2,304,752	364,092	469,994	6,171	2,636	35,590
1946: October	2,434,057	2,391,478	1,271,976	425,093	694,409	6,902	3,061	32,516
November	2,400,321	2,357,755	1,229,705	426,177	701,873	6,896	3,079	32,591
December	2,614,144	2,572,000	1,176,596	715,421	679,983	6,806	3,061	32,277
1947: January	2,279,045	2,237,128	1,129,710	426,818	680,600	6,864	3,066	31,987
February	2,256,834	2,214,638	1,104,137	425,754	684,747	7,080	3,069	32,047
March	2,247,289	2,205,082	1,091,197	426,978	686,907	7,039	3,061	32,107
April	2,215,389	2,173,262	1,058,678	429,507	685,077	7,174	3,072	31,881
May	2,193,091	2,151,264	1,028,043	435,423	687,798	7,246	3,071	31,510
June	2,168,806	2,127,715	996,238	437,303	694,174	7,215	3,061	30,905
July	2,103,246	2,062,275	936,533	439,617	696,125	7,254	3,074	30,643
August	2,067,249	2,026,071	923,080	442,289	660,702	7,230	3,404	30,544
September	2,020,914	1,980,084	906,989	425,449	647,646	7,184	3,406	30,240
October	2,002,448	1,962,042	901,197	425,005	635,840	7,118	3,430	29,588
Continental United States								
1939	926,636	897,579	179,380	318,802	399,397	5,373	2,180	21,504
1943	2,913,534	2,875,928	2,057,696	363,297	454,935	6,171	2,546	28,889
1946: October	2,118,825	2,084,103	902,574	423,702	667,827	6,902	2,993	24,827
November	2,084,062	2,049,287	949,115	424,785	675,387	6,896	3,010	24,809
December	2,307,993	2,273,572	906,763	713,100	653,649	6,806	2,992	24,623
1947: January	1,982,584	1,948,312	868,473	425,425	654,414	6,864	2,998	24,410
February	1,971,647	1,937,231	854,850	424,339	658,042	7,080	3,001	24,335
March	1,964,820	1,930,725	844,818	425,567	660,340	7,039	2,993	24,063
April	1,942,834	1,909,052	822,597	428,090	658,365	7,174	3,004	23,604
May	1,924,560	1,890,920	796,135	433,996	660,789	7,246	3,003	23,391
June	1,905,068	1,871,898	769,268	435,831	666,799	7,215	2,963	23,962
July	1,848,469	1,815,222	718,523	438,110	658,589	7,254	3,006	22,987
August	1,815,925	1,782,410	708,681	440,773	632,956	7,230	3,332	22,953
September	1,781,773	1,748,530	704,575	424,005	619,950	7,184	3,334	22,725
October	1,764,444	1,731,411	699,815	423,473	608,123	7,118	3,358	22,557

¹ Employment represents an average for the year or is as of the first of the month. Data for the legislative and judicial branches and for all Government corporations except the Panama R. R. Co. are reported directly to the Bureau of Labor Statistics. Data for the executive branch and for the Panama R. R. Co. are reported through the Civil Service Commission but differ from those published by the Civil Service Commission in the following respects: (1) Exclude seamen and trainees who are hired and paid by private steamship companies having contracts with the Maritime Commission, included by Civil Service Commission starting January 1947; (2) exclude substitute rural mail carriers, included by the Civil Service Commission since September 1945; (3) include in December the additional postal employment necessitated by the Christmas season, excluded from published Civil Service Commission figures starting 1942; (4) include an upward adjustment to Post Office Department employment prior to December 1943 to convert temporary substitute employees from a full-time equivalent to a name-count basis, the latter being the basis on which data for subsequent months have been reported; (5) the Panama R. R. Co. is shown under Government corporations here, but is included under the executive branch by the Civil Service Commission; (6) employment published by the Civil Service Commission as of the last day of the month is presented here as of the first day of the next month.

² From 1939 through June 1943 employment was reported for all areas monthly and employment within continental United States was secured by deducting the number of persons outside the continental area, which was estimated from actual reports as of January of 1939 and 1940 and July of 1941

and 1943. From July 1943, through December 1946, employment within continental United States was reported monthly and the number of persons outside the country (estimated from quarterly reports) was added to secure employment in all areas. Beginning January 1947, employment is reported monthly both inside and outside continental United States.

³ Data for current months cover the following corporations: Federal Reserve banks, banks of the Farm Credit Administration, and the Panama R. R. Co. Data for earlier years include at various times the following additional corporations: Inland Waterways Corporation, Spruce Production Corporation, and certain employees of the Federal Deposit Insurance Corporation and of the Office of the Comptroller of the Currency, Treasury Department. Corporations not included in this column are under the executive branch.

⁴ Covers the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and, until their abolition or amalgamation with a peacetime agency, the agencies created specifically to meet war and reconversion emergencies.

⁵ For ways in which data differ from published figures of the Civil Service Commission, see footnote 1. Employment figures include fourth-class postmasters in all months. Prior to July 1945, clerks at third-class post offices were hired on a contract basis and therefore, because of being private employees, are excluded here. They are included beginning July 1945, however, when they were placed on the regular Federal pay roll by congressional action.

TABLE A-12: Total Federal Pay Rolls by Branch and Agency Group¹

[In thousands]

Year and month	All branches	Executive ²				Legislative	Judicial	Government corporations ³
		Total	Defense agencies ⁴	Post Office Department ⁵	All other agencies			
All areas (including outside continental United States)								
1939	\$1,753,151	\$1,688,684	\$357,628	\$586,346	\$744,710	\$14,765	\$6,691	\$43,011
1944 ⁶	8,301,111	8,206,411	6,178,387	864,947	1,163,077	18,127	9,274	67,299
1946: October	571,821	562,198	286,380	96,363	179,455	2,194	1,190	5,939
November	530,854	521,717	261,404	96,174	164,139	2,127	1,193	5,817
December	581,890	572,642	269,854	137,277	165,511	2,166	1,190	5,892
1947: January	538,717	529,195	250,359	97,186	181,650	2,369	1,222	5,931
February	490,800	481,634	227,849	94,525	159,260	2,308	1,090	5,858
March	517,814	508,451	246,695	97,001	164,455	2,365	1,140	5,858
April	508,834	499,295	233,132	96,441	169,722	2,440	1,178	5,927
May	512,966	503,656	234,047	95,256	174,353	2,439	1,181	5,690
June	518,990	509,767	242,865	93,506	173,396	2,425	1,149	5,649
July	505,232	495,681	217,131	96,591	181,959	2,483	1,329	5,738
August	485,984	476,612	218,996	96,145	161,471	2,421	1,259	5,613
September	472,184	462,839	198,793	96,485	167,561	2,448	1,284	5,668
October	480,977	471,487	204,284	96,702	170,501	2,457	1,334	5,609
Continental United States								
1944 ⁶	\$7,628,017	\$7,540,825	\$5,553,166	\$862,271	\$1,125,388	\$18,127	\$8,878	\$60,187
1946: October	527,303	518,720	249,704	96,065	172,861	2,194	1,154	5,235
November	488,250	479,844	225,897	95,876	158,071	2,127	1,160	5,119
December	534,974	526,438	230,411	136,878	159,149	2,166	1,155	5,215
1947: January	492,977	484,126	211,846	96,863	175,417	2,369	1,183	5,299
February	448,853	440,284	192,415	94,212	153,657	2,308	1,058	5,206
March	472,987	464,416	209,125	96,681	158,610	2,365	1,104	5,102
April	464,526	455,717	196,050	96,125	163,542	2,440	1,143	5,226
May	468,696	460,075	197,324	94,936	167,815	2,439	1,145	5,037
June	471,599	463,039	203,026	93,185	166,828	2,425	1,114	5,021
July	461,997	453,082	181,873	96,260	174,949	2,483	1,202	5,140
August	444,567	435,901	185,563	95,819	154,519	2,421	1,223	5,022
September	429,642	420,958	164,115	96,137	150,706	2,448	1,248	4,988
October	438,413	429,608	169,603	96,357	163,558	2,457	1,297	5,051

¹ Data are from a series revised June 1947 to adjust pay rolls, which from July 1945 until December 1946 were reported for pay periods ending during the month, to cover the entire calendar month. Data for the executive branch and for the Panama R. R. Co. are reported through the Civil Service Commission. Data for the legislative and judicial branches and for all Government corporations except the Panama R. R. Co. are reported directly to the Bureau of Labor Statistics.

² From 1932 through May 1943, pay rolls were reported for all areas monthly. Beginning June 1943, some agencies reported pay rolls for all areas and some reported pay rolls for the continental area only. Pay rolls for areas outside continental United States from June 1943 through November 1946 (except for the National Military Establishment for which these data were reported monthly) were secured by multiplying employment in these areas (see footnote 2, table A-11, for derivation of the employment) by the average

pay per person in March 1944, as revealed in a survey as of that date, adjusted for the salary increases given in July 1945 and July 1946. Beginning December 1946 pay rolls for areas outside the country are reported monthly by most agencies.

³ See footnote 3, table A-11.

⁴ See footnote 4, table A-11.

⁵ Beginning July 1945, pay is included of clerks at third-class post offices who previously were hired on a contract basis and therefore were private employees and of fourth-class postmasters who previously were compensated by the retention of a part of the postal receipts. Both these groups were placed on a regular salary basis in July 1945 by congressional action.

⁶ Data are shown for 1944, instead of 1943 as in the other Federal tables, because pay rolls for employment in areas outside continental United States are not available prior to June 1943.

TABLE A-13: Total Government Employment and Pay Rolls in Washington, D. C., by Branch and Agency Group¹

Year and month	Total government	District of Columbia Government	Federal						
			Total	Executive ²				Legislative	Judicial
				All agencies	Defense agencies ³	Post Office Department ⁴	All other agencies		
Employment⁵									
1939	143,548	13,978	129,570	123,773	18,761	5,099	99,913	5,373	424
1943	300,907	15,867	285,040	278,363	144,319	8,273	125,771	6,171	506
1946: October	250,826	17,501	233,325	225,862	61,495	7,495	130,872	6,902	561
November	249,811	17,606	232,205	224,742	70,085	7,521	138,136	6,896	567
December	252,539	17,582	234,957	227,582	78,383	11,036	138,163	6,806	569
1947: January	246,528	17,795	228,733	221,293	75,676	7,819	137,798	6,864	576
February	245,769	17,912	227,857	220,206	75,284	7,618	137,304	7,080	571
March	244,991	18,012	226,979	219,367	75,304	7,552	136,511	7,039	573
April	243,715	17,981	225,724	217,984	75,052	7,466	135,466	7,174	576
May	241,053	18,024	223,029	215,210	73,309	7,413	134,488	7,246	573
June	237,850	18,512	219,338	211,554	71,175	7,309	133,070	7,215	569
July	230,360	17,616	212,726	204,831	67,968	7,063	129,838	7,254	573
August	223,727	2,806	205,921	198,099	65,062	7,342	125,695	7,230	562
September	221,860	18,072	203,788	196,033	64,651	7,120	124,262	7,184	571
October	221,130	18,197	202,933	195,239	64,505	7,284	123,450	7,118	576
Pay rolls (in thousands)									
1939	\$305,728	\$25,226	\$280,502	\$264,527	\$37,825	\$12,524	\$214,178	\$14,765	\$1,209
1943	737,792	32,884	704,908	685,510	352,008	20,070	313,432	17,785	1,613
1946: October	69,896	4,242	65,654	63,250	21,978	2,285	38,987	2,194	210
November	64,607	4,090	60,517	58,194	20,758	2,261	35,175	2,127	196
December	67,555	4,189	63,366	60,993	20,205	3,202	37,586	2,166	207
1947: January	69,701	4,326	65,375	62,791	21,003	2,355	39,433	2,369	215
February	62,981	4,067	58,914	56,417	19,062	2,268	35,087	2,308	189
March	64,999	4,140	60,859	58,295	19,653	2,272	36,370	2,365	199
April	66,094	4,233	61,861	59,219	19,443	2,254	37,522	2,440	202
May	67,026	4,251	62,775	60,135	19,295	2,231	38,609	2,439	201
June	63,389	4,204	59,185	56,564	17,837	2,179	36,548	2,425	196
July	64,745	3,381	61,364	58,671	18,632	2,296	38,088	2,483	210
August	60,612	3,188	57,424	54,804	17,860	2,283	34,961	2,421	198
September	59,896	4,381	55,515	52,862	16,367	2,239	34,256	2,448	205
October	61,562	4,504	57,058	54,385	16,708	2,221	35,456	2,457	216

¹ Data for the legislative and judicial branches and District of Columbia Government are reported to the Bureau of Labor Statistics. Data for the executive branch are reported through the Civil Service Commission but differ from those published by the Civil Service Commission in the following respects: (1) include in December the temporary additional postal employment necessitated by the Christmas season, excluded from published Civil Service Commission figures starting 1942; (2) include an upward adjustment to Post Office Department employment prior to December 1943 to convert temporary substitute employees from a full-time equivalent to a name-count basis, the latter being the basis on which data for subsequent months have been reported; (3) exclude persons working without compensation or for \$1 a year or month, included by the Civil Service Commission from June through November 1943; (4) employment published by the Civil Service Commission as of the last day of the month is presented here as of the first day of the next month.

² Beginning January 1942, data cover, in addition to the area inside the

District of Columbia, the adjacent sections of Maryland and Virginia which are defined by the Bureau of the Census as in the metropolitan area.

³ Covers the War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and until their abolition or amalgamation with a peacetime agency, the agencies created specifically to meet war and reconversion emergencies.

⁴ For ways in which data differ from published figures of the Civil Service Commission, see footnote 1.

⁵ Yearly figures represent averages. Monthly figures represent (1) the number of regular employees in pay status on the first day of the month plus the number of intermittent employees who were paid during the preceding month for the executive branch, (2) the number of employees on the pay roll with pay during the pay period ending just before the first of the month for the legislative and judicial branches, and (3) the number of employees on the pay roll with pay during the pay period ending on or just before the last of the month for the District of Columbia Government.

TABLE A-14: Personnel and Pay in Military Branch of Federal Government¹
 [In thousands]

Year and month	Personnel (average for year or as of first of month) ²					Type of pay				
	Total	Army ³	Navy	Marine Corps	Coast Guard	Total	Pay rolls ⁴	Mustering-out pay ⁵	Family allowances ⁶	Leave payments ⁷
1939	345	191	124	20	10	\$331,523	\$331,523	-----	-----	-----
1943	8,944	6,733	1,744	311	156	11,173,186	10,140,852	-----	\$1,032,334	-----
1946: October	2,477	1,738	596	121	22	606,717	377,627	\$64,343	35,650	\$129,097
November	2,441	1,717	585	117	22	736,851	349,749	50,617	35,316	301,169
December	2,204	1,512	562	108	22	757,647	395,144	45,315	33,165	284,023
1947: January	1,987	1,319	539	107	22	745,843	368,484	29,967	29,052	318,340
February	1,906	1,254	525	106	21	664,053	309,929	18,722	28,004	307,398
March	1,834	1,199	508	105	22	669,501	302,464	18,292	26,548	322,197
April	1,777	1,148	504	103	22	593,677	303,395	17,383	28,499	244,400
May	1,703	1,082	501	99	21	369,947	264,701	15,022	25,814	65,410
June	1,631	1,021	495	94	21	335,391	262,505	12,465	24,459	35,962
July	1,592	990	490	93	19	338,167	259,172	12,070	24,075	42,250
August	5,575	972	492	92	19	335,048	250,075	10,498	24,016	50,459
September	1,557	955	491	92	19	334,823	251,387	9,632	23,770	50,034
October	1,543	941	491	92	19	335,546	251,850	9,954	23,920	49,822

¹ Except for Army personnel for 1939 which is from the Annual Report of the Secretary of War, all data are from reports submitted to the Bureau of Labor Statistics by the various military branches.

² Includes personnel on active duty, those on terminal leave, the missing, and those in the hands of the enemy.

³ Prior to March 1944, data include persons on induction furlough. Prior to June 1942 and after April 1945, Philippine Scouts are included.

⁴ Pay rolls are for personnel on active duty or on terminal leave. Coast Guard pay rolls and Army pay rolls for 1943 represent actual expenditures. Other data represent estimated obligations based on an average monthly personnel count. Pay rolls for the Navy and Coast Guard include cash pay-

ments for clothing-allowance balances in January, April, July, and October.

⁵ Represents actual expenditures.

⁶ Represents Government's contribution. The men's share is included in the pay rolls.

⁷ Leave payments were authorized by Public Law 704 of the 79th Congress to enlisted personnel discharged prior to Sept. 1, 1946, for accrued and unused leave, and to present officers and enlisted personnel for leave accrued in excess of 60 days. Payment of present personnel while on terminal leave is included in the pay roll. Value of bonds (representing face value, to which interest will be added at time bonds are cashed) and cash payments are included.

B: Labor Turn-Over

TABLE B-1:-Monthly Labor Turn-Over Rates¹ (Per 100 Employees) in Manufacturing Industries, by Class of Turn-Over

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total accession:												
1947	6.0	5.0	5.1	5.1	4.8	5.5	4.8	5.3	² 5.9	-----	-----	-----
1946	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	4.3
1945	7.0	5.0	4.9	4.7	5.0	5.9	5.8	5.9	7.4	8.6	8.7	6.9
1943	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	5.2
1939 ³	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8
Total separation:												
1947	4.9	4.5	4.9	5.2	5.4	4.7	4.5	5.3	² 5.9	-----	-----	-----
1946	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	4.5
1945	6.2	6.0	6.8	6.6	7.0	7.9	7.7	17.9	12.0	8.6	7.1	5.9
1943	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	6.6
1939 ⁴	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
Quit:⁵												
1947	3.5	3.2	3.5	3.7	3.5	3.1	3.0	4.0	² 4.5	-----	-----	-----
1946	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	4.7	3.7	3.0
1945	4.6	4.3	5.0	4.8	4.8	5.1	5.2	6.2	6.7	5.6	4.7	4.0
1943	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	4.4
1939 ⁴	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1947	.4	.4	.4	.4	.4	.4	.4	.4	² .4	-----	-----	-----
1946	.5	.5	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4
1945	.7	.7	.7	.6	.6	.7	.6	.7	.6	.5	.5	.4
1943	.5	.5	.6	.5	.6	.6	.7	.6	.6	.6	.6	.6
1939 ⁴	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
Lay-off:⁶												
1947	.9	.8	.9	1.0	1.4	1.1	1.0	.8	² .9	-----	-----	-----
1946	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	1.0	.7	1.0
1945	.6	.7	.7	.8	1.2	1.7	1.5	10.7	4.5	2.3	1.7	1.3
1943	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	1.0
1939 ²	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
Miscellaneous, including military:⁴												
1947	.1	.1	.1	.1	.1	.1	.1	.1	² .1	-----	-----	-----
1946	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1
1945	.3	.3	.4	.4	.4	.4	.4	.3	.2	.2	.2	.2
1943	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6

¹ Month-to-month changes in total employment in manufacturing industries as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month, while the latter, for the most part, refer to a 1-week period ending nearest the middle of the month. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain seasonal industries, such as canning and preserving, are not

covered. Plants on strike are also excluded. For the month of August rates are based on reports from 6,900 establishments employing 4,500,000 workers.

² Preliminary figures.

³ Prior to 1943, rates relate to wage earners only.

⁴ Prior to September 1940, miscellaneous separations were included with quits.

⁵ Including temporary, indeterminate (of more than 7 days' duration), and permanent lay-offs.

TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees), in Selected Groups and Industries¹

Group and industry	Total accession		Separation										Miscellaneous, including military	
			Total		Quit		Discharge		Lay-off					
	Sept. ² 1947	Aug. 1947	Sept. ² 1947	Aug. 1947										
Manufacturing*														
Durable goods.....	5.9	5.0	6.1	5.4	4.6	3.9	0.5	0.5	0.9	0.9	0.1	0.1		
Nondurable goods.....	6.0	5.6	5.9	5.5	4.5	4.2	.4	.4	.9	.8	.1	.1		
Iron and steel and their products.....	5.0	4.2	5.4	4.4	4.2	3.4	.4	.4	.6	.5	.2	.1		
Blast furnaces, steel works, and rolling mills.....	3.8	3.0	4.3	3.3	3.6	2.7	.2	.2	.3	.2	.2	.2		
Gray-iron castings.....	8.8	6.9	8.5	8.4	6.8	6.2	1.1	1.0	1.5	1.1	.1	.1		
Malleable-iron castings.....	6.0	6.1	6.6	6.6	5.6	5.3	.6	.6	.2	.6	.2	.1		
Steel castings.....	4.8	5.2	4.5	4.4	3.3	3.2	.5	.6	.5	.4	.2	.2		
Cast-iron pipe and fittings.....	5.4	4.2	5.2	4.9	4.4	2.7	.3	.4	.5	1.7	(*)	.1		
Tin cans and other tinware.....	(*)	11.3	(*)	8.4	(*)	5.8	(*)	1.7	(*)	.7	(*)	.2		
Wire products.....	3.6	3.1	3.4	4.1	2.5	2.4	.3	.5	.4	.9	.2	.3		
Cutlery and edge tools.....	6.1	4.9	4.8	4.0	3.0	2.6	.6	.4	1.1	.9	.1	.1		
Tools (except edge tools, machine tools, files, and saws).....	5.2	3.9	4.7	4.8	3.8	3.4	.5	.4	.3	.9	.1	.1		
Hardware.....	7.7	5.4	7.2	6.8	5.6	5.3	.8	.6	.7	.8	.1	.1		
Stoves, oil burners, and heating equipment.....	8.2	8.7	8.2	7.7	5.6	6.1	1.0	1.1	1.4	.3	.2	.2		
Steam and hot-water heating apparatus and steam fittings.....	4.5	5.5	6.5	7.1	4.6	4.0	.5	.6	1.3	2.3	.1	.2		
Stamped and enameled ware and galvanizing.....	7.6	6.6	7.1	6.0	5.4	4.7	.6	.6	.9	.6	.2	.1		
Fabricated structural-metal products.....	5.6	5.1	5.9	5.5	4.4	3.3	.5	.6	.9	1.5	.1	.1		
Bolts, nuts, washers, and rivets.....	2.7	3.3	5.1	3.8	3.3	2.8	.3	.4	2.4	.4	.1	.2		
Forgings, iron and steel.....	4.1	3.4	4.5	4.0	3.3	3.0	.4	.4	.7	.5	.1	.1		
Electrical machinery.....	4.9	4.0	4.6	3.9	3.7	2.8	.3	.3	.5	.7	.1	.1		
Electrical equipment for industrial use.....	3.2	2.5	3.5	2.9	2.8	1.9	.2	.2	.4	.6	.1	.2		
Radios, radio equipment, and phonographs.....	7.2	6.4	6.1	5.9	4.6	4.0	.6	.8	.7	1.0	.2	.1		
Communication equipment, except radios.....	3.1	2.5	3.6	3.0	3.1	2.4	.2	.2	.2	.3	.1	.1		
Machinery, except electrical.....	4.5	3.8	5.0	4.6	3.7	3.2	.4	.4	.8	.9	.1	.1		
Engines and turbines.....	4.4	3.9	4.7	5.1	2.7	2.8	.7	.4	1.1	1.8	.2	.1		
Agricultural machinery and tractors.....	(*)	4.1	(*)	4.5	(*)	3.7	(*)	.4	(*)	.2	(*)	.2		
Machine tools.....	2.2	1.9	4.4	3.4	2.4	2.0	.3	.3	1.6	1.0	.1	.1		
Machine-tool accessories.....	2.8	2.9	5.1	4.9	2.0	2.2	.4	.5	2.6	2.1	.1	.1		
Metalworking machinery and equipment, not elsewhere classified.....	3.9	3.9	3.2	3.9	2.6	2.9	.3	.5	.2	.5	(*)			
General industrial machinery, except pumps.....	3.9	3.4	4.8	5.2	3.2	3.1	.4	.4	1.1	1.6	.1	.1		
Pumps and pumping equipment.....	3.2	3.1	4.6	4.8	3.8	3.2	.3	.4	1.1	1.1	.1	.1		
Transportation equipment, except automobiles.....	7.5	6.5	7.5	7.4	4.6	4.0	.5	.5	2.3	2.7	.1	.2		
Aircraft.....	6.7	5.9	6.6	5.4	4.7	3.9	.3	.3	1.5	1.2	.1	.1		
Aircraft parts, including engines.....	3.2	3.7	3.8	3.7	2.8	2.1	.3	.3	1.5	1.0	.2	.3		
Shipbuilding and repairs.....	12.9	9.9	13.6	13.8	6.0	5.5	1.1	1.2	6.3	6.9	.2	.2		
Automobiles.....	6.1	5.2	7.1	5.2	4.7	3.8	.5	.5	1.7	.7	.2	.2		
Motor vehicles, bodies, and trailers.....	6.2	4.5	7.6	5.1	4.8	3.9	.5	.4	2.1	.6	.2	.2		
Motor-vehicle parts and accessories.....	6.0	4.9	5.9	5.1	4.5	3.5	.6	.6	.6	.8	.2	.2		
Nonferrous metals and their products.....	5.2	4.5	5.2	5.5	3.6	3.4	.4	.4	1.1	1.6	.1	.1		
Primary smelting and refining, except aluminum and magnesium.....	3.5	3.5	4.0	3.2	2.8	2.4	.3	.4	.7	.2	.2	.2		
Rolling and drawing of copper and copper alloys.....	1.8	1.2	3.4	4.8	1.8	1.7	.1	.1	1.4	2.9	.1	.1		
Lighting equipment.....	(*)	5.3	(*)	8.9	(*)	6.1	(*)	.0	(*)	1.8	(*)	.1		
Nonferrous-metal foundries, except aluminum and magnesium.....	6.2	5.0	6.9	7.2	4.4	3.7	.7	.6	1.6	2.7	.2	.2		
Lumber and timber basic products.....	8.5	7.5	7.9	7.5	7.0	6.6	.5	.4	.3	.4	.1	.1		
Sawmills.....	8.6	7.5	8.1	7.3	7.1	6.3	.5	.4	.4	.5	.1	.1		
Planing and plywood mills.....	6.4	5.6	5.7	6.0	5.2	5.1	.3	.5	.1	.2	.1	.2		
Furniture and finished lumber products.....	9.3	8.6	8.8	8.5	7.2	6.7	.8	.9	.7	.8	.1	.1		
Furniture, including mattresses and bedsprings.....	9.3	8.9	8.7	8.5	7.2	6.8	.8	.9	.6	.7	.1	.1		
Stone, clay, and glass products.....	4.7	4.6	5.3	4.8	3.9	3.4	.5	.5	.7	.7	.2	.2		
Glass and glass products.....	4.3	3.8	5.0	4.5	3.2	2.5	.6	.6	.9	1.2	.3	.2		
Cement.....	5.1	5.9	5.6	4.6	4.7	3.8	.6	.6	.1	.1	.2	.1		
Brick, tile, and terra cotta.....	6.7	6.9	6.4	6.2	5.5	4.8	.5	.7	.3	.4	.1	.3		
Pottery and related products.....	4.4	4.6	4.4	4.4	3.7	3.8	.2	.5	.4	.1	(*)			
Textile-mill products.....	6.1	5.3	5.4	5.3	4.3	4.1	.4	.4	.6	.7	.1	.1		
Cotton.....	6.7	5.6	6.3	6.0	5.2	4.8	.4	.4	.6	.7	.1	.1		
Silk and rayon goods.....	5.9	5.8	4.9	4.6	4.0	3.4	.2	.3	.6	.8	.1	.1		
Woolen and worsted, except dyeing and finishing.....	5.0	4.2	4.9	4.6	3.2	2.8	.4	.4	1.1	1.3	.2	.1		
Hosiery, full-fashioned.....	4.6	3.8	3.9	4.1	3.2	3.4	.2	.2	.4	.4	.1	.1		
Hosiery, seamless.....	7.5	6.0	5.3	5.2	4.3	4.5	.2	.2	.5	.3	.3	.2		
Knitted underwear.....	7.4	8.0	5.9	6.4	5.2	5.7	.5	.4	.1	.2	.1	.1		
Dyeing and finishing textiles, including woolen and worsted.....	5.1	3.4	3.7	4.1	2.9	3.0	.4	.4	.3	.6	.1	.1		
Apparel and other finished textile products.....	7.3	6.6	6.3	5.8	5.5	5.2	.3	.2	.5	.4	(*)	(*)		
Men's and boys' suits, coats, and overcoats.....	5.3	5.5	4.7	4.8	4.4	4.3	.2	.2	.1	.2	(*)	(*)		
Men's and boys' furnishings, work clothing, and allied garments.....	7.6	7.0	7.0	6.5	6.0	5.6	.3	.2	.7	.7	(*)	(*)		
Leather and leather products.....	5.5	5.5	5.5	5.3	4.9	4.7	.2	.3	.3	.3	.1	(*)		
Leather.....	4.1	3.7	3.8	3.9	3.0	2.9	.2	.4	.4	.5	.2	.1		
Boots and shoes.....	5.7	5.7	5.6	5.5	5.2	5.0	.2	.3	.2	.2	(*)	(*)		

See footnotes at end of table.

TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees), in Selected Groups and Industries,¹
Continued

Group and industry	Total accession		Separation									
			Total		Quit		Discharge		Lay-off		Miscellaneous, including military	
	Sept. ² 1947	Aug. 1947	Sept. ² 1947	Aug. 1947								
Manufacturing—Continued												
Food and kindred products	7.7	8.1	7.9	7.8	5.1	5.2	0.7	0.7	2.0	1.8	0.1	0.1
Meat products	7.4	8.0	8.5	8.7	4.8	5.0	.8	.8	2.7	2.7	.2	.2
Grain-mill products	6.3	7.6	7.1	6.7	5.4	4.6	.4	.8	1.1	1.2	.2	.1
Tobacco manufactures	6.2	6.3	5.6	5.6	4.6	4.3	.4	.4	.5	.8	.1	.1
Paper and allied products	4.6	4.3	5.3	4.6	4.4	3.7	.5	.4	.2	.3	.2	.2
Paper and pulp	4.1	3.5	4.7	3.9	3.9	3.1	.4	.4	.2	.2	.2	.2
Paper boxes	6.3	6.9	7.4	6.8	6.2	5.6	.8	.6	.3	.5	.1	.1
Chemicals and allied products	2.8	2.4	3.5	3.9	2.7	2.1	.2	.3	.5	.5	.1	.1
Paints, varnishes, and colors	2.9	2.9	3.9	3.0	3.2	2.5	.3	.3	.3	.1	.1	.1
Rayon and allied products	2.6	1.9	2.8	2.4	2.1	1.5	.1	.4	.4	.4	.2	.1
Industrial chemicals, except explosives	3.0	2.6	3.8	3.4	2.8	2.2	.3	.3	.6	.8	.1	.1
Products of petroleum and coal	1.5	1.4	2.1	1.8	1.5	1.3	.2	.2	.2	.2	.2	.1
Petroleum refining	1.2	1.2	1.8	1.6	1.3	1.2	.1	.1	.2	.2	.2	.1
Rubber products	4.3	3.6	4.3	3.9	3.5	3.0	.3	.3	.4	.5	.1	.1
Rubber tires and inner tubes	2.9	2.2	3.3	2.7	2.6	2.0	.2	.2	.3	.4	.2	.1
Rubber footwear and related products	6.9	6.1	6.6	5.3	6.0	4.8	.3	.2	.2	.1	.1	.1
Miscellaneous rubber industries	6.0	5.2	5.2	5.3	4.2	4.0	.4	.5	.5	.7	.1	.1
Miscellaneous industries	(6)	3.9	(6)	4.1	(6)	2.9	(6)	.3	(6)	.8	(6)	.1
Nonmanufacturing												
Metal mining*	6.0	5.8	7.4	6.6	6.0	4.6	.5	.4	.8	1.4	.1	.2
Iron-ore	3.0	2.9	5.1	3.4	3.6	2.8	.3	.1	1.0	.1	.2	.4
Copper-ore	6.2	6.7	7.1	6.9	6.7	5.7	.3	.4	.1	.7	(6)	(6)
Lead- and zinc-ore	6.4	7.7	7.7	10.8	5.4	4.6	.5	.5	1.7	5.7	.1	(6)
Coal mining:												
Anthracite	1.9	2.1	1.9	1.9	1.3	1.2	.1	(6)	.4	.6	.1	.1
Bituminous-coal	4.4	4.8	3.7	3.2	3.2	2.7	.2	.2	.2	.2	.1	.1
Public utilities:	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Telephone	(6)	1.8	(6)	2.8	(6)	2.3	(6)	.1	(6)	.4	(6)	(6)
Telegraph ⁴	(6)											

¹ Since January 1943 manufacturing firms reporting labor turn-over information have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample, comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products. Labor turn-over data, beginning in January 1943, refer to all employees. Employment information for all employees is available for major manufacturing industry groups; for individual industries these data refer to production workers only.

² Preliminary figures.

³ Less than 0.05.

⁴ Not available.

⁵ Labor turn-over rates for the telegraph industry in July were as follows: Accession 2.6; total separation 2.3; quit 1.8; discharge 0.1; lay-off 0.8; miscellaneous and military 0.1.

⁶ For the month of August rates are based on reports as follows: Manufacturing: 6,900 establishments—4,500,000 workers. Mining: 475 establishments—237,000 workers.

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C: Earnings and Hours

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹

MANUFACTURING

Year and month													Iron and steel and their products						
	All manufacturing			Durable goods			Non-durable goods			Total: Iron and steel and their products			Blast furnaces, steel works, and rolling mills			Gray-Iron and semi-steel castings			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1939: Average.....	\$23.86	37.7	Cents	\$26.50	38.0	69.8	\$21.78	37.4	58.2	\$27.52	37.2	73.9	\$20.88	35.3	84.5	\$25.93	37.1	69.9	
1941: January.....	26.64	39.0	68.3	30.48	40.7	74.9	22.75	37.3	61.0	31.07	40.4	76.9	33.60	40.2	86.9	30.45	41.2	73.9	
1946: September.....	45.39	40.3	112.6	48.36	40.3	120.1	42.34	40.3	105.0	49.29	39.7	124.1	50.28	38.0	132.5	52.58	42.3	124.3	
October.....	45.73	40.5	113.0	48.90	40.7	120.7	42.45	40.2	105.6	49.86	40.3	123.9	50.39	38.7	130.3	53.36	42.8	124.8	
November.....	45.79	40.2	113.9	48.62	40.2	121.0	42.87	40.3	106.5	49.91	40.0	124.7	50.82	38.8	131.0	52.78	41.8	126.3	
December.....	46.96	40.9	114.8	49.57	40.8	121.6	44.24	41.1	107.7	49.67	39.8	124.8	48.59	37.0	131.4	53.98	42.6	126.6	
1947: January.....	47.10	40.6	116.1	49.60	40.5	122.4	44.47	40.7	109.4	50.64	40.2	126.1	50.89	38.2	133.2	54.43	42.7	127.5	
February.....	47.29	40.4	117.0	49.74	40.5	122.9	44.67	40.4	110.7	50.33	40.0	125.8	50.67	38.5	131.7	54.04	42.1	128.3	
March.....	47.69	40.4	118.0	50.30	40.7	123.6	44.89	40.1	111.9	51.31	40.4	126.9	51.77	38.9	133.3	54.49	42.3	129.0	
April.....	47.50	40.1	118.6	50.34	40.5	124.3	44.40	39.6	112.2	51.78	40.4	128.0	52.83	39.2	134.7	54.57	42.0	130.0	
May.....	48.44	40.1	120.7	51.72	40.5	127.8	44.88	39.7	113.0	53.71	40.3	133.3	56.26	38.9	144.5	56.34	42.6	132.2	
June.....	49.33	40.2	122.6	52.99	40.7	130.3	45.31	39.8	114.0	55.18	40.5	136.3	58.12	39.5	147.2	56.79	42.3	134.5	
July.....	48.98	39.8	123.0	52.19	40.0	130.5	45.61	39.7	115.0	53.67	39.3	136.5	55.23	37.4	147.8	55.64	41.6	134.1	
August.....	49.19	39.8	123.7	52.54	40.0	131.2	45.76	39.5	115.8	54.51	39.6	137.6	58.25	39.2	148.8	53.87	40.3	133.2	
September.....	50.45	40.4	124.9	54.05	40.6	133.1	46.77	40.1	116.5	56.15	40.2	139.7	59.16	38.9	151.5	57.78	42.1	136.8	
Iron and steel and their products—Continued																			
Malleable-iron castings			Steel castings			Cast-iron pipe and fittings			Tin cans and other tinware			Wirework			Cutlery and edge tools				
1939: Average.....	\$24.16	36.0	Cents	\$27.97	36.9	75.9	\$21.33	36.4	58.1	\$23.61	38.8	61.1	\$25.96	38.1	68.3	\$23.11	39.1	60.1	
1941: January.....	28.42	40.2	70.7	32.27	41.4	78.0	25.42	40.5	62.6	25.31	39.8	63.9	28.27	39.7	71.2	25.90	40.5	65.2	
1946: September.....	61.50	40.7	126.6	49.28	38.3	128.6	43.67	40.7	107.1	46.22	41.9	111.1	49.89	41.3	120.7	45.83	43.0	106.5	
October.....	52.27	40.9	127.7	50.27	38.9	129.3	45.23	42.3	106.8	44.68	40.8	110.0	48.87	40.9	119.6	46.49	43.0	108.0	
November.....	51.74	40.4	128.2	51.87	39.9	129.8	45.92	43.0	106.7	42.68	39.1	109.7	48.94	40.6	120.5	46.41	42.7	108.6	
December.....	51.35	40.3	127.5	51.72	39.8	130.0	46.17	41.8	110.3	44.79	40.8	110.4	49.28	41.0	120.2	47.50	43.3	109.5	
1947: January.....	52.92	40.9	128.8	50.68	39.0	129.8	49.51	43.9	112.8	44.30	40.0	111.1	50.05	41.3	121.3	47.19	42.7	110.4	
February.....	52.81	40.9	129.0	49.72	38.6	128.8	47.90	42.6	112.4	43.78	39.4	111.7	49.60	41.0	120.8	47.59	42.7	111.3	
March.....	52.72	40.5	130.0	52.23	40.0	130.5	48.71	43.0	113.2	44.95	40.3	111.6	50.50	41.2	122.6	47.85	42.9	111.5	
April.....	53.52	41.0	130.6	53.01	40.4	131.1	48.41	42.4	114.2	44.85	40.1	112.7	49.70	40.7	122.4	46.84	41.6	112.6	
May.....	55.02	41.0	134.1	54.33	40.5	134.2	51.86	43.4	119.3	45.66	40.2	113.8	49.72	39.8	125.0	46.94	41.1	114.1	
June.....	54.36	39.8	136.5	56.18	40.5	138.7	52.27	43.0	121.5	47.61	40.3	118.1	52.19	40.1	130.0	48.85	41.9	116.4	
July.....	55.08	40.4	136.4	56.25	40.3	139.5	49.65	41.4	119.6	51.34	41.5	124.1	51.85	39.7	131.1	47.45	41.2	115.1	
August.....	51.68	37.7	137.2	54.71	39.1	139.9	46.79	39.9	118.4	53.57	42.5	125.9	51.45	39.3	130.5	46.56	40.2	115.8	
September.....	55.93	40.3	139.3	56.50	39.9	141.5	48.34	40.5	119.9	55.05	43.1	126.9	53.70	40.4	132.8	49.20	42.2	117.1	
Iron and steel and their products—Continued																			
Tools (except edge tools, machine tools, files, and saws)			Hardware			Plumbers' supplies			Stoves, oil burners, and heating equipment, not elsewhere classified			Steam and hot-water heating apparatus and steam fittings			Stamped and enameled ware and galvanizing				
1939: Average.....	\$24.49	39.7	61.8	\$23.13	38.9	59.3	\$25.80	38.2	67.6	\$25.25	38.1	66.6	\$26.19	37.6	69.7	\$23.92	38.1	62.7	
1941: January.....	29.49	44.7	66.2	25.24	40.9	62.1	27.13	39.0	69.6	26.07	38.7	67.8	30.98	42.5	73.2	26.32	39.4	66.5	
1946: September.....	47.59	42.5	112.1	45.11	41.2	109.5	45.63	39.4	115.7	47.36	40.2	117.8	49.72	40.8	121.9	45.49	39.6	115.0	
October.....	49.01	42.9	114.1	46.24	41.9	110.5	48.64	41.4	117.4	48.89	41.0	119.2	51.45	41.1	125.2	46.83	40.7	115.0	
November.....	49.03	42.4	115.8	46.65	41.3	110.6	48.06	40.7	118.3	48.64	40.6	119.9	50.83	40.6	125.3	46.10	39.7	116.1	
December.....	50.02	43.3	115.6	46.42	41.7	111.3	49.68	41.4	120.2	49.61	41.3	120.1	48.78	39.9	122.2	48.30	41.1	117.6	
1947: January.....	50.39	43.3	116.4	47.04	41.6	111.9	51.27	42.3	121.9	50.26	41.1	122.4	50.12	40.7	123.1	47.57	40.6	117.6	
February.....	49.54	42.6	116.4	47.45	41.9	113.1	48.51	39.9	121.5	49.02	40.2	122.0	50.31	40.7	123.5	46.71	39.6	117.9	
March.....	49.93	42.9	116.3	47.29	41.7	113.5	49.90	40.7	122.7	49.79	40.6	122.6	51.02	40.9	124.6	48.14	40.3	119.3	
April.....	50.48	42.9	117.6	47.90	41.5	115.3	50.22	40.6	123.6	50.11	40.7	123.0	51.63	40.6	127.1	48.44	40.3	120.1	
May.....	50.86	42.5	119.8	49.18	41.7	117.9	49.92	40.0	124.7	50.38	40.2	124.9	51.39	40.1	128.2	49.96	40.1	124.7	
June.....	51.22	42.4	120.7	49.63	41.4	119.5	51.81	40.4	128.3	51.00	40.2	126.9	53.72	40.8	131.6				

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.
MANUFACTURING—Continued

Year and month	Iron and steel and their products—Continued																		
	Fabricated structural and ornamental metalwork			Metal doors, sash, frames, molding and trim ²			Bolts, nuts, washers, and rivets			Forgings, iron and steel			Screw-machine products and wood screws			Steel barrels, kegs, and drums ³			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1939: Average.....	\$27.95	38.5	Cents			Cents		\$26.04	37.7	60.0	\$29.45	38.4	Cents			Cents		Cents	
1941: January.....	31.01	41.8	74.3					29.58	41.9	70.6	36.75	45.0	81.8						
1946: September....	48.85	40.6	120.3	\$52.13	41.1	126.9	45.70	38.9	116.7	54.22	39.5	136.3	\$50.57	42.3	119.6	\$45.46	39.8	114.3	
October.....	49.74	41.0	121.4	51.58	41.6	124.0	46.89	39.7	117.6	55.86	40.4	138.3	52.13	43.3	120.4	47.02	41.1	114.4	
November.....	48.06	39.6	121.3	51.45	40.8	126.1	48.87	41.0	118.9	56.22	40.1	140.1	51.50	42.5	121.2	50.16	42.3	118.5	
December.....	51.10	41.7	122.5	53.54	42.8	124.9	48.76	40.7	119.2	58.04	40.9	141.8	52.19	42.9	121.6	50.68	42.8	118.3	
1947: January.....	49.82	40.5	122.9	51.06	41.8	122.1	48.83	40.2	121.1	59.01	41.3	143.0	52.21	42.7	122.4	48.41	39.9	121.8	
February.....	50.40	41.0	123.0	51.21	41.6	123.0	50.46	41.2	122.2	59.78	41.5	144.0	51.99	42.5	122.4	50.95	40.9	124.6	
March.....	51.73	41.7	124.0	53.56	42.3	126.8	50.29	40.9	122.7	60.42	41.7	144.8	53.42	43.0	124.3	50.85	41.0	124.2	
April.....	51.94	41.7	124.6	52.99	41.5	127.6	50.72	41.4	122.3	59.68	41.3	144.3	52.73	42.5	124.2	51.16	40.9	125.2	
May.....	53.07	41.8	126.9	56.06	42.9	130.7	53.51	42.1	126.8	60.22	41.3	145.9	53.37	42.3	126.2	51.75	40.5	127.9	
June.....	54.90	42.0	130.6	*55.45	*42.7	129.1	54.49	41.5	131.1	61.93	41.1	150.8	53.79	42.1	127.8	53.49	41.0	130.5	
July.....	53.54	40.7	131.6	52.42	40.8	128.6	51.88	40.0	129.5	59.07	39.7	148.9	52.93	41.4	127.8	53.04	40.3	131.1	
August.....	55.63	41.7	133.5	54.40	41.0	132.6	52.06	40.0	130.8	57.86	38.6	149.1	52.38	40.8	128.4	53.38	40.3	132.4	
September.....	56.17	41.7	134.2	56.40	42.0	134.6	52.35	40.1	131.2	62.19	40.7	153.4	53.91	41.9	128.5	55.08	40.7	135.3	
	Iron and steel and their products—Continued			Electrical machinery															
	Firearms			Total: Electrical machinery			Electrical equipment			Radios and phonographs			Communication equipment			Total: Machinery, except electrical			
1939: Average.....	\$27.28	41.3	Cents	\$27.09	38.6	Cents	70.2	\$27.95	38.7	72.2	\$22.34	38.5	58.1	\$28.74	38.3	75.1	\$29.27	39.3	Cents
1941: January.....	35.09	48.6	72.2	31.84	42.4	75.1	33.18	43.4	76.5	24.08	38.2	63.2	32.47	41.4	78.4	34.36	44.0	78.1	
1946: September....	53.30	42.3	125.9	48.31	40.8	118.5	49.24	40.5	121.4	42.63	40.0	106.6	50.60	42.2	119.9	51.74	41.1	126.0	
October.....	51.10	40.7	125.6	48.28	40.7	118.6	48.92	40.3	121.3	42.88	40.1	107.0	51.36	42.7	120.3	52.57	41.5	126.6	
November.....	52.89	40.7	130.1	48.33	40.6	119.1	49.12	40.2	122.1	43.42	40.3	107.6	50.48	42.0	120.3	52.06	40.9	127.3	
December.....	53.37	40.5	131.8	49.13	41.1	119.5	49.80	40.7	122.4	44.38	40.9	108.6	51.58	42.7	120.8	52.87	41.4	127.7	
1947: January.....	54.15	41.3	131.2	48.63	40.5	119.9	49.64	40.3	123.1	42.33	39.4	107.4	51.48	42.5	121.3	53.12	41.4	128.3	
February.....	54.33	41.3	131.5	48.13	40.0	120.3	48.98	39.7	123.2	41.72	38.6	108.0	51.59	42.3	122.2	53.22	41.3	129.0	
March.....	55.09	41.7	133.5	49.07	40.5	121.2	50.28	40.4	124.4	42.87	39.1	108.2	51.52	42.1	122.6	53.82	41.5	129.8	
April.....	54.62	41.1	133.0	48.36	40.0	121.0	50.22	40.2	125.0	42.31	38.9	108.8	47.84	40.5	117.9	54.25	41.5	130.8	
May.....	56.38	41.3	136.6	50.24	39.8	126.4	52.65	40.1	131.4	44.57	39.1	113.9	46.52	39.1	118.9	55.20	41.4	133.4	
June.....	57.54	41.6	138.3	51.57	39.8	129.5	54.04	40.5	133.5	45.98	38.2	115.1	49.62	38.8	127.7	56.30	41.3	136.3	
July.....	56.60	41.0	138.4	52.00	39.8	130.8	53.84	40.1	134.4	46.17	39.6	116.6	50.57	38.7	130.6	56.06	40.9	137.1	
August.....	56.65	40.8	138.9	51.53	39.2	131.4	53.50	39.6	135.0	44.29	38.0	116.7	51.18	38.9	131.6	55.74	40.5	137.7	
September.....	58.51	41.8	140.1	53.44	40.3	132.5	55.05	40.5	136.0	47.24	40.0	118.2	53.45	40.0	133.9	57.39	41.1	139.5	
	Machinery, except electrical—Continued																		
	Machinery and machine-shop products			Engines and turbines			Tractors			Agricultural machinery, excluding tractors			Machine tools			Machine-tool accessories			
1939: Average.....	\$28.76	39.4	Cents	\$28.67	37.4	Cents	76.7	\$32.13	38.3	83.9	\$26.46	37.0	71.6	\$32.25	42.9	75.2	\$31.78	40.9	Cents
1941: January.....	34.00	43.7	77.7	36.50	44.1	82.7	36.03	41.5	86.8	29.92	39.5	75.7	40.15	50.4	79.7	37.90	50.0	75.8	
1946: September....	51.05	41.2	123.8	55.26	40.5	136.5	51.21	39.3	130.2	50.42	40.4	124.7	54.45	41.9	130.0	58.76	42.5	138.0	
October.....	51.91	41.6	124.5	55.38	41.1	136.5	52.28	40.2	130.2	50.34	40.4	124.5	55.61	42.6	130.6	58.70	42.6	137.8	
November.....	51.38	41.1	124.9	55.57	40.5	137.0	52.53	40.3	130.4	49.65	39.8	124.8	55.90	42.3	132.2	58.08	42.1	138.0	
December.....	52.62	41.8	125.7	56.88	41.5	137.1	51.99	40.1	129.7	49.75	39.8	125.1	56.66	42.8	132.2	59.71	43.2	138.1	
1947: January.....	52.78	41.7	126.4	56.08	41.0	136.8	51.96	39.5	131.5	49.84	39.9	125.0	56.17	42.2	132.6	58.43	42.5	137.9	
February.....	52.61	41.5	126.7	56.37	41.1	137.2	51.96	39.8	130.5	51.59	40.6	127.2	56.09	42.3	132.5	58.16	41.8	139.2	
March.....	53.10	41.6	127.5	56.92	41.2	138.2	52.99	40.3	131.4	51.78	40.1	129.2	56.46	42.3	133.4	58.40	42.1	138.9	
April.....	53.31	41.6	127.9	57.27	41.3	139.4	54.73	40.3	135.8	51.93	40.2	128.9	56.06	42.0	133.4	58.66	41.8	140.4	
May.....	54.44	41.6	130.7	58.74	41.2	142.8	56.95	39.9	142.6	53.18	40.0	133.0	57.13	42.1	135.7	58.92	41.7	141.4	
June.....	55.53	41.5	133.6	60.20	41.2	146.0	*57.57	*40.0	144.7	55.80	40.8	136.8	58.31	42.2	138.1	59.14	41.6	143.2	
July.....	55.00	40.8	134.9	59.51	40.3	147.7	57.77	40.1	144.0	56.83	41.0	138.5	56.78	41.6	136.6	58.4			

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.
MANUFACTURING—Continued

Year and month	Machinery, except electrical—Continued																	
	Textile machinery			Typewriters			Cash registers, adding and calculating machines			Washing machines, wringers and dryers, domestic ²			Sewing machines, domestic and industrial			Refrigerators and refrigeration equipment ³		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$26.19	39.8	Cents 66.0	\$23.98	37.3	Cents 64.3	\$30.38	37.2	Cents 81.2	-----	-----	-----	-----	-----	-----	-----	-----	-----
1941: January.....	30.13	44.6	67.7	26.40	39.1	67.5	34.78	41.4	84.6	-----	-----	-----	-----	-----	-----	-----	-----	-----
1946: September.....	49.43	42.6	116.1	47.19	41.7	113.2	57.91	42.6	137.0	\$47.87	41.7	114.7	\$51.15	40.4	127.4	\$49.54	40.1	123.5
October.....	50.26	42.9	117.3	47.89	41.9	114.3	57.34	42.3	136.6	49.60	42.7	116.1	52.63	41.2	128.2	49.71	40.2	123.7
November.....	49.60	41.8	118.6	48.98	42.1	116.5	58.42	41.8	140.6	45.76	39.6	115.5	52.63	40.8	129.1	47.67	38.4	124.1
December.....	52.12	43.5	119.9	47.41	40.6	116.9	56.37	40.7	139.1	48.43	41.5	116.8	54.13	41.7	130.2	47.56	38.1	124.9
1947: January.....	53.15	43.2	122.9	47.56	40.8	116.5	57.14	41.1	139.9	52.31	42.4	122.5	54.02	41.5	130.7	51.59	40.4	126.7
February.....	53.67	43.1	124.5	47.95	40.9	117.1	60.47	42.7	142.7	49.21	40.4	121.8	54.61	41.6	131.5	48.79	38.2	127.6
March.....	53.86	43.2	124.8	46.13	40.9	117.6	60.68	42.5	143.9	52.31	42.1	124.1	55.28	42.0	132.1	51.09	40.0	128.1
April.....	53.14	42.5	125.1	49.29	41.2	119.7	61.83	42.4	146.9	53.91	42.8	125.8	54.46	41.2	132.8	53.42	40.7	131.2
May.....	54.10	42.6	126.9	50.75	41.6	121.9	61.68	42.3	146.8	54.89	42.5	129.1	56.25	41.7	135.5	53.19	40.4	131.7
June.....	54.88	42.6	128.9	*51.58	42.8	120.9	63.67	41.9	151.0	55.16	41.8	131.8	58.97	41.7	141.5	54.77	40.4	135.6
July.....	55.40	41.9	132.1	52.33	43.7	119.8	60.35	40.6	149.0	54.85	41.6	131.8	58.43	41.0	142.5	55.37	40.8	135.6
August.....	53.16	41.2	129.2	51.22	40.5	126.5	59.52	40.2	148.7	52.61	40.1	131.9	56.50	39.9	140.3	52.22	38.5	135.6
September.....	56.64	42.6	132.9	51.91	40.6	128.0	63.21	42.1	151.3	53.55	40.6	132.6	60.64	41.7	145.1	54.18	39.5	137.3
Transportation equipment, except automobiles																		
Total: Transportation equipment, except automobiles			Locomotives			Cars, electric- and steam-railroad ²			Aircraft and parts, excluding aircraft engines			Aircraft engines			Shipbuilding and boatbuilding			
1939: Average.....	\$30.51	38.9	Cents 78.5	\$28.33	36.7	Cents 77.1	\$26.71	36.0	Cents 74.1	\$30.34	41.5	Cents 74.5	\$36.58	44.1	Cents 83.5	\$31.91	38.0	Cents 83.5
1941: January.....	35.69	43.1	82.8	34.79	42.8	81.4	29.57	38.5	76.8	34.13	44.7	77.6	42.16	47.2	89.2	37.69	42.0	89.3
1946: September.....	52.65	38.8	135.6	57.92	39.6	146.2	49.38	39.9	123.8	53.73	40.6	132.3	56.93	41.9	135.7	50.91	35.7	142.6
October.....	54.32	40.0	135.9	60.63	41.6	145.6	51.75	41.8	123.9	53.81	40.6	132.6	57.31	42.1	136.3	53.96	37.7	143.2
November.....	52.37	38.4	136.4	57.22	39.9	143.3	52.46	41.2	127.2	52.53	39.6	132.6	51.06	37.2	137.3	51.47	35.7	144.1
December.....	55.35	40.6	136.2	59.99	41.5	144.5	52.24	41.5	126.0	53.46	40.4	132.5	56.89	41.9	135.7	57.21	40.0	143.0
1947: January.....	54.48	40.2	135.6	55.64	39.8	139.7	52.17	40.6	128.3	52.59	39.8	132.1	56.15	41.4	135.7	57.05	40.2	142.0
February.....	54.34	39.7	136.7	56.97	40.4	141.1	53.42	41.3	129.2	53.41	40.1	133.2	54.77	40.7	134.4	55.37	38.4	144.2
March.....	54.25	39.8	136.2	51.68	37.4	138.4	53.67	40.8	131.5	53.22	39.8	133.8	53.02	39.4	134.4	56.59	39.9	141.8
April.....	54.29	39.8	136.3	52.20	37.2	140.2	53.51	40.9	131.0	52.54	39.6	132.6	53.77	39.7	135.3	56.97	39.9	142.6
May.....	55.31	40.2	137.6	59.09	40.2	146.9	54.80	41.4	132.3	52.42	39.5	132.8	54.77	39.6	138.3	57.91	40.4	143.3
June.....	55.59	40.1	138.7	59.10	40.0	147.8	55.76	41.1	135.6	52.58	39.2	134.1	55.44	38.8	142.8	57.79	40.7	142.1
July.....	56.02	40.1	139.5	59.26	39.7	149.4	56.83	41.7	136.4	54.48	39.7	137.2	56.19	39.2	143.5	56.77	39.9	142.1
August.....	55.83	39.7	140.6	61.89	40.9	151.2	51.89	38.6	134.3	55.30	40.0	138.1	56.58	39.2	144.3	57.22	39.5	145.0
September.....	56.40	39.7	142.2	64.34	41.4	156.1	54.87	39.9	137.5	54.00	39.2	138.4	58.71	40.3	145.8	57.64	39.4	146.2
Transportation equipment, except automobiles—Con.			Automobiles			Nonferrous metals and their products			Alloying and rolling and drawing of nonferrous metals except aluminum			Clocks and watches						
Motorcycles, bicycles, and parts						Total: Nonferrous metals and their products			Smelting and refining, primary, of nonferrous metals									
1939: Average.....	-----	-----	Cents 32.91	35.4	92.9	\$26.74	38.9	68.7	\$26.67	38.2	Cents 69.9	\$28.77	39.6	Cents 72.9	\$22.27	37.9	Cents 58.7	
1941: January.....	-----	-----	37.69	38.9	96.9	30.47	41.4	73.6	29.21	38.7	75.5	35.96	44.0	81.8	23.90	38.9	61.4	
1946: September.....	\$50.95	41.2	123.8	53.37	38.5	138.5	48.55	40.7	119.2	48.65	40.3	120.8	51.39	40.7	126.4	43.68	41.0	106.4
October.....	53.24	42.6	125.0	53.41	38.8	137.6	48.92	40.9	119.5	47.80	40.0	119.6	51.93	40.7	127.5	41.5	41.6	107.8
November.....	52.39	41.2	127.0	53.83	38.6	139.4	49.24	40.9	120.4	48.25	39.8	121.2	52.21	40.6	128.7	45.46	41.6	109.3
December.....	55.23	43.2	127.8	54.98	39.4	139.5	50.40	41.7	121.0	49.75	41.1	121.5	53.69	41.7	128.6	45.39	41.4	109.6
1947: January.....	50.29	40.5	124.0	54.13	38.9	139.0	49.91	41.0	121.7	49.39	40.4	122.7	53.45	41.3	129.3	43.83	39.7	110.
February.....	50.40	40.1	125.8	54.29	38.8	139.9	50.12	41.0	122.2	50.04	40.6	123.4	53.92	41.5	130.0	44.88	41.0	109.6
March.....	52.43	41.4	126.7	55.45	39.7	139.6	50.26	41.0	122.6	50.66	40.9	123.9	53.68	41.2	130.2	44.83	40.7	110.1
April.....	52.36	41.3	126.9	54.14	38.5	140.6	50.30	40.8	123.4	51.05	40.8	125.2	53.45	40.9	130.5	44.71	40.4	110.8
May.....	54.60	41.8	130.7	55.96	38.3	146.3	51.15	40.6	126.0	52.87	41.4	127.8	53.01	39.8	133.0	45.07	40.1	112.4
June.....	55.52	41.4	134.1	57.48	38.7	148.5	52.06	40.5	128.6	54.20	41.6	130.3	55.10	39.7	137.9	45.82	40.0	114.5
July.....	56.35	42.3	133.3	56.44	37.7	149.6	51.12	39.7	128.9</td									

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.
MANUFACTURING—Continued

Year and month	Nonferrous metals and their products—Continued												Lumber and timber basic products					
	Jewelry (precious metal) and jewelers' findings			Silverware and plated ware			Lighting equipment			Aluminum manufacturers ²			Total: Lumber and timber basic products			Sawmills and logging camps		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$26.36	30.4	66.0	\$26.03	40.7	64.3	\$25.73	37.1	69.3	\$27.49	39.3	69.9	\$19.06	39.0	48.9	\$18.29	38.4	47.6
1941: January.....	26.43	30.1	66.4	27.37	41.4	66.6	28.19	39.3	71.7	32.85	42.0	78.2	20.27	38.9	52.1	19.59	38.4	51.0
1946: September.....	48.03	43.5	112.4	55.48	45.9	121.0	46.10	39.1	117.8	47.32	39.5	119.7	38.73	41.4	93.5	37.69	41.2	91.5
October.....	49.91	43.8	114.6	56.42	46.1	122.2	45.92	39.1	117.5	46.94	39.4	119.2	39.21	41.0	93.6	37.84	41.5	91.3
November.....	49.31	42.6	114.9	55.70	45.2	123.4	47.13	40.0	117.8	48.15	40.0	120.4	37.74	40.6	93.1	36.37	40.2	90.6
December.....	51.76	44.6	115.2	58.27	46.8	124.9	46.74	39.5	118.4	48.34	40.6	121.1	38.79	41.7	93.1	37.05	41.1	90.1
1947: January.....	48.94	42.4	115.7	57.86	46.2	125.4	47.91	39.9	120.0	48.11	40.0	120.4	39.11	40.6	96.2	37.41	40.0	93.5
February.....	48.37	42.1	115.4	57.34	45.6	125.8	48.92	40.4	121.3	47.60	39.2	121.3	41.18	42.1	97.9	39.89	41.8	95.4
March.....	48.47	41.7	116.7	58.35	45.7	127.8	47.59	39.4	120.9	48.71	40.1	121.3	40.31	41.0	98.3	39.12	40.6	96.6
April.....	47.09	41.0	115.9	58.01	45.6	127.5	47.63	39.2	121.5	48.55	39.7	122.1	41.01	41.4	99.0	39.81	40.9	97.2
May.....	47.52	40.5	118.0	58.50	45.8	127.8	50.87	39.5	128.2	48.52	39.2	124.2	43.06	42.0	102.5	41.95	41.7	100.6
June.....	47.34	40.7	117.6	58.97	45.7	129.2	50.44	38.7	130.5	49.20	39.0	126.7	45.04	42.8	105.3	44.14	42.5	104.0
July.....	44.44	39.0	114.7	58.72	45.3	130.0	47.74	36.7	130.2	48.86	38.4	127.2	43.57	42.2	103.3	42.86	42.1	101.8
August.....	46.40	39.8	117.2	57.20	44.1	129.9	48.78	37.4	130.5	49.34	38.9	126.6	45.26	43.2	104.8	44.50	43.1	103.4
September.....	50.23	42.0	120.2	61.28	46.4	132.1	50.23	37.4	134.3	49.03	38.6	128.9	44.98	42.7	105.4	44.05	42.5	103.7
Lumber and timber basic products—Con.			Furniture and finished lumber products												Stone, clay, and glass products			
Planing and plywood mills			Total: Furniture and finished lumber products			Furniture			Caskets and other morticians' goods			Wood preserving			Total: Stone, clay, and glass products			
1939: Average.....	\$22.17	41.1	Cents 54.0	\$19.95	38.5	51.8	\$20.51	38.9	53.0						\$23.94	37.6	Cents 63.7	
1941: January.....	22.51	40.5	55.4	20.90	38.7	54.0	21.42	39.0	55.2						25.02	37.4	66.9	
1946: September.....	42.04	42.2	99.5	40.86	41.8	97.7	41.62	41.6	100.2	\$42.74	42.8	100.2	\$38.01	41.5	91.7	44.03	40.5	108.7
October.....	43.49	43.2	100.5	41.73	42.2	99.0	42.42	41.8	101.4	42.66	42.5	100.3	38.24	41.6	91.9	44.46	40.6	109.6
November.....	41.88	41.8	100.4	41.62	41.7	99.9	42.41	41.4	102.4	43.14	41.5	103.5	38.90	41.8	93.1	44.91	40.3	111.4
December.....	44.12	43.4	101.4	42.49	42.2	100.7	43.04	41.6	103.4	45.02	43.2	103.7	38.66	42.0	92.1	45.89	41.0	111.9
1947: January.....	44.11	42.5	103.9	42.41	41.8	101.5	43.35	41.5	104.6	45.02	42.7	105.2	37.55	40.4	92.2	45.88	40.5	112.5
February.....	45.13	42.9	104.9	42.80	41.9	102.2	44.20	42.0	104.9	44.79	42.1	106.0	38.49	40.9	94.0	45.49	40.1	113.3
March.....	45.10	42.8	105.4	43.00	41.7	103.1	44.33	41.9	105.9	45.67	42.3	107.7	38.90	40.8	95.3	46.38	40.5	114.4
April.....	45.90	43.3	105.9	42.87	41.5	103.2	43.99	41.4	106.4	45.49	42.1	107.7	39.78	41.4	96.0	46.49	40.5	114.9
May.....	47.65	43.5	109.7	43.45	41.5	104.6	44.21	41.2	107.4	46.88	42.2	110.8	41.66	43.0	96.9	47.24	40.3	117.3
June.....	48.84	44.1	110.7	44.24	41.7	106.1	45.04	41.6	108.5	46.99	42.2	111.1	41.14	41.8	98.4	48.54	40.8	119.0
July.....	46.58	42.6	109.3	43.51	41.1	105.8	44.12	40.9	107.9	44.32	40.2	110.3	41.05	42.0	97.8	48.00	40.1	119.8
August.....	48.58	43.8	110.7	44.05	41.2	107.0	44.53	41.1	108.6	45.69	40.6	112.2	42.28	42.2	100.1	49.09	40.5	121.1
September.....	48.65	43.6	112.3	45.32	41.5	109.3	46.29	41.4	111.5	47.21	41.5	113.4	42.06	42.3	100.3	49.58	40.5	122.4
Stone, clay, and glass products—Continued																		
Glass and glassware			Glass products made from purchased glass			Cement			Brick, tile, and terra cotta			Pottery and related products			Gypsum			
1939: Average.....	\$25.32	55.2	Cents 72.1				\$26.67	38.2	69.9	\$20.55	37.8	54.3	\$22.74	37.2	62.5			
1941: January.....	28.02	56.3	77.2				26.82	37.9	70.9	21.74	36.9	58.7	23.92	36.4	63.5			
1946: September.....	45.29	39.5	114.7	\$38.88	40.5	93.8	47.03	42.9	109.7	41.28	40.3	102.0	41.33	38.2	108.6	\$50.46	46.6	108.4
October.....	45.71	39.4	116.1	40.29	40.9	96.4	46.02	42.4	108.5	42.28	40.9	102.7	41.89	38.4	109.6	52.04	47.8	108.8
November.....	45.72	39.2	119.4	41.35	41.2	97.7	46.18	42.2	109.5	42.08	40.3	103.5	41.66	37.9	110.0	50.89	46.2	110.2
December.....	47.96	39.9	120.3	42.53	42.0	99.8	46.12	42.4	109.0	42.57	40.7	104.0	42.82	38.6	111.0	51.39	46.8	109.6
1947: January.....	47.78	39.4	121.4	42.36	42.0	99.3	43.79	40.6	107.9	42.22	40.3	104.1	41.97	37.7	112.1	51.49	46.2	111.4
February.....	46.85	38.6	121.6	41.58	41.7	100.0	44.67	41.5	107.7	42.88	40.0	108.6	42.60	37.2	114.9	51.14	45.9	111.4
March.....	48.45	39.6	122.6	40.76	41.1	99.1	45.12	41.6	108.5	42.78	40.1	108.3	44.26	38.3	115.7	51.95	46.8	112.2
April.....	48.88	39.7	123.2	40.69	40.6	100.2	45.82	42.1	108.9	42.58	39.7	106.2	44.42	38.9	115.2	50.45	45.2	111.6
May.....	48.66	39.3	123.9	41.94	40.8	102.8	44.46	39.3	113.2	45.77	40.6	112.3	46.45	38.9	117.1	52.05	45.8	113.5
June.....	50.42	40.0	126.4	42.93	40.8	105.3	51.89	42.7	120.8	45.66	41.0	110.9	45.78	38.7	118.6	52.55	45.3	116.1
July.....	49.34	38.6	128.1	40.87	39.6	103.1	51.72	41.9	123.5	45.25	40.5	111.3	44.86	37.9	119.2	54.91	46.1	119.1
August																		

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.
MANUFACTURING—Continued

Year and month	Stone, clay, and glass products—Continued												Textile-mill products and other fiber manufactures							
	Lime			Marble, granite, slate, and other products			Abrasives			Asbestos products			Total: Textile-mill products and other fiber manufactures			Cotton manufactures, except smallwares				
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings		
1939: Average.....				Cents	\$26.18	38.9	71.4			Cents	\$24.43	39.0	62.7	\$16.84	36.6	46.0	\$14.26	36.7	38.9	
1941: January.....					24.20	34.6	70.8				27.26	41.3	66.0	18.01	36.9	48.8	15.60	37.2	41.9	
1946: September.....	\$45.66	46.9	97.4	42.64	41.6	102.2	\$45.35	38.0	119.4	49.19	42.9	114.5	37.54	40.0	94.0	35.35	39.8	88.8		
October.....	45.12	46.6	96.6	44.18	42.9	102.6	45.11	38.1	118.5	49.86	42.0	118.7	38.09	40.2	94.8	35.57	39.9	89.2		
November.....	45.69	46.2	98.8	42.76	41.6	103.4	48.45	39.9	121.4	50.18	41.9	119.8	38.38	40.2	95.5	36.14	40.3	89.8		
December.....	46.06	46.7	98.2	44.26	42.4	104.9	50.38	41.6	121.2	50.79	42.7	118.8	39.26	40.9	95.9	36.85	40.9	90.0		
1947: January.....	43.83	44.7	98.3	43.88	42.1	104.5	52.70	43.2	122.0	51.91	43.2	120.2	39.29	40.5	97.0	37.06	40.6	91.4		
February.....	44.90	45.3	98.1	44.18	41.9	105.6	49.46	40.7	121.6	52.73	43.9	120.1	40.32	40.4	99.7	37.56	40.5	92.7		
March.....	45.70	46.2	98.6	45.30	42.0	107.5	50.63	40.4	125.4	53.03	43.8	121.0	41.01	40.0	102.4	39.22	40.1	97.9		
April.....	46.53	46.6	99.4	45.51	42.1	107.9	49.72	39.7	125.3	52.46	42.8	122.5	40.12	39.1	102.7	38.53	39.3	98.1		
May.....	*47.19	*46.2	101.7	45.43	42.9	108.5	50.10	39.6	126.4	52.58	42.6	123.5	39.89	38.9	102.6	37.73	38.8	97.0		
June.....	*48.45	*46.0	104.5	46.07	42.2	108.5	48.66	39.1	124.4	54.21	42.9	126.4	39.54	38.6	102.4	37.10	38.3	97.0		
July.....	47.23	44.9	104.2	45.48	42.1	107.9	50.00	39.3	127.3	54.90	43.3	126.8	39.48	38.4	102.8	37.21	38.3	97.3		
August.....	48.90	45.4	106.9	46.61	41.4	112.6	51.26	39.2	130.6	54.16	41.2	123.5	39.40	38.2	103.1	37.50	38.4	97.7		
September.....	49.23	45.5	108.1	47.58	42.3	112.2	54.74	40.7	134.6	52.83	40.3	131.9	41.43	39.5	104.9	38.55	39.2	98.5		
Textile-mill products and other fiber manufactures—Continued																				
	Cotton smallwares			Silk and rayon goods			Woolen and worsted manufactures, except dyeing and finishing			Hosiery			Knitted cloth			Knitted outerwear and knitted gloves				
				Cents	\$18.22	39.0	47.4	\$15.78	36.5	Cents	42.9	\$16.21	36.4	52.8	\$18.98	35.6	53.6	\$18.15	38.4	Cents
					19.74	39.3	50.3	16.53	35.7		46.1	21.78	37.9	57.6	18.51	33.8	55.0	19.90	37.9	50.3
1939: Average.....										Cents										
1941: January.....																				
1946: September.....	38.33	40.5	94.7	37.20	40.4	92.2	42.44	41.1	102.4	36.65	37.7	97.4	39.85	41.9	95.1	35.84	38.6	91.8		
October.....	39.00	40.6	96.1	38.67	41.6	93.1	42.40	40.9	103.7	37.65	28.3	98.2	39.94	41.7	95.7	36.69	39.4	92.3		
November.....	38.09	39.7	96.1	38.69	41.1	94.1	41.67	40.1	103.8	38.20	38.4	99.5	39.90	40.9	96.7	37.14	39.5	93.0		
December.....	39.64	41.0	96.7	39.57	41.8	94.4	42.98	41.3	103.9	39.05	38.8	100.6	39.26	40.2	97.2	36.74	39.2	92.8		
1947: January.....	40.48	41.0	98.7	40.21	41.1	97.5	43.10	41.3	104.5	38.35	38.1	100.7	39.03	40.9	95.4	36.49	38.4	94.4		
February.....	40.59	40.5	100.4	41.45	41.6	99.6	47.44	41.0	115.6	38.40	38.1	100.9	40.89	41.3	98.9	36.68	38.4	94.8		
March.....	40.69	40.4	100.8	41.94	41.5	101.2	46.28	40.1	115.5	38.41	37.8	101.6	41.00	*1.6	98.6	36.75	38.5	94.7		
April.....	39.98	39.5	101.7	40.89	40.2	101.6	45.26	39.1	115.9	36.35	35.9	101.0	39.49	39.9	98.9	36.68	37.3	95.2		
May.....	38.85	38.5	101.4	41.73	41.0	101.9	45.28	39.2	115.8	36.42	35.9	101.4	40.06	40.3	98.5	36.51	37.6	93.9		
June.....	38.85	38.5	101.0	40.97	40.3	101.7	45.75	39.4	116.0	35.39	35.2	100.5	40.32	40.3	98.2	35.11	37.0	94.1		
July.....	39.68	39.1	101.6	41.17	40.3	102.3	45.33	39.1	116.0	36.37	35.3	103.0	40.91	40.8	99.1	34.51	36.8	92.6		
August.....	38.58	38.2	100.9	41.65	40.0	104.3	42.28	36.6	115.6	38.08	36.8	103.4	41.11	40.7	100.1	35.53	37.7	92.8		
September.....	40.67	39.7	102.4	43.23	40.9	105.7	46.99	40.2	116.9	39.49	37.7	104.9	41.71	40.5	101.3	37.01	38.2	95.3		
Textile-mill products and other fiber manufactures—Continued																				
	Knitted underwear			Dyeing and finishing textiles, including woolen and worsted			Carpets and rugs, wool			Hats, fur-felt			Jute goods, except felts			Cordage and twine				
				Cents	\$15.05	36.9	41.0	\$20.82	38.6	Cents	\$23.25	36.1	64.4	\$22.73	32.2	70.7	Cents			
					16.06	36.0	44.6	21.65	39.3		25.18	37.3	67.5	27.12	36.2	75.5				
1939: Average.....										Cents										
1941: January.....																				
1946: September.....	32.70	38.1	85.2	40.72	41.4	98.3	43.72	41.3	106.1	53.25	40.9	130.0	\$39.47	44.0	91.2	\$37.86	41.4	91.4		
October.....	33.05	38.4	85.5	42.60	42.3	100.8	46.01	41.1	112.2	52.92	40.6	130.2	39.52	43.7	91.8	37.63	40.9	92.2		
November.....	33.31	38.7	85.9	43.54	42.2	103.3	46.83	41.2	113.9	52.83	40.2	130.9	39.68	43.8	92.0	37.94	40.3	94.3		
December.....	34.26	39.3	86.8	45.38	43.6	104.2	47.86	41.8	114.7	53.70	41.3	129.9	40.57	44.4	92.9	39.08	41.4	94.4		
1947: January.....	33.70	38.7	86.9	45.67	43.3	105.5	46.51	40.7	114.5	50.15	39.1	127.7	40.09	43.9	92.8	39.14	41.1	95.1		
February.....	34.22	38.8	88.1	45.75	42.9	106.5	46.51	40.5	114.9	49.60	38.9	127.2	41.74	43.4	97.9	39.51	41.0	96.4		
March.....	34.86	38.7	89.9	46.12	42.6	108.3	47.12	40.8	115.8	49.22	38.0	129.7	41.57	43.2	97.9	40.00	40.6	98.4		
April.....	34.22	38.3	89.1	45.95	41.3	111.4	47.69	40.4	118.1	47.28	36.3	130.0	40.98	42.7	97.7	40.23	40.5	99.2		
May.....	35.18	39.0	90.4	45.02	41.1	110.8	48.30	41.2	117.5	46.81	36.4	128.9	42.12	43.4	98.5	39.11	39.2	99.6		
June.....	34.85	38.8	90.1	46.13																

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.

MANUFACTURING—Continued

Year and month	Apparel and other finished textile products																	
	Total: Apparel and other finished textile products			Men's clothing, not elsewhere classified			Shirts, collars, and nightwear			Underwear and neckwear, men's			Work shirts			Women's clothing, not elsewhere classified		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours
1939: Average	\$18.17	34.5	Cents	\$19.32	33.2	Cents	\$13.75	34.6	Cents	\$14.18	35.4	Cents	\$11.03	35.8	Cents	\$19.20	33.9	Cents
1941: January	18.76	33.5	52.7	20.40	33.4	60.7	14.22	33.0	43.1	14.85	33.6	44.2	12.33	33.6	36.7	19.47	33.2	51.9
1946: September	37.25	36.9	101.0	39.14	37.7	102.7	29.62	37.0	79.9	33.13	37.9	87.5	23.55	34.5	68.2	47.82	35.8	130.0
October	36.68	36.8	99.7	38.89	37.7	102.4	30.39	37.4	80.9	33.32	37.5	88.9	24.00	34.8	69.0	46.25	35.5	126.6
November	36.54	36.6	99.8	41.39	37.8	108.6	32.04	37.6	84.7	34.78	38.6	90.1	26.01	36.6	71.2	43.28	34.9	121.1
December	37.23	37.0	100.6	41.78	38.1	108.9	33.22	38.1	86.8	33.68	38.9	91.3	26.72	36.9	72.4	44.14	35.3	122.3
1947: January	38.22	36.9	103.7	41.70	37.8	109.5	32.17	37.1	86.9	33.37	36.7	90.8	25.43	34.7	73.1	47.30	35.7	129.7
February	38.74	36.9	104.9	41.86	37.8	109.7	32.32	37.2	86.9	33.49	36.6	91.5	25.69	35.8	71.6	48.77	36.2	131.4
March	38.41	36.7	104.5	41.99	37.6	110.6	32.11	37.0	86.9	34.35	36.5	94.0	25.37	34.3	73.3	47.75	36.1	129.3
April	35.44	35.5	99.9	40.45	36.7	109.4	31.62	36.5	86.8	32.18	34.3	93.7	25.00	34.2	72.8	42.32	34.4	120.0
May	35.36	35.8	98.8	41.49	37.2	110.5	32.01	36.9	86.7	*32.41	35.1	92.9	25.11	34.5	73.0	41.58	34.6	116.8
June	35.77	36.0	99.4	41.35	37.2	110.4	31.54	36.8	85.7	33.55	36.4	91.6	24.91	34.3	72.6	41.87	35.0	118.2
July	36.50	35.8	102.0	40.17	36.5	109.8	31.24	36.3	86.2	33.79	36.0	93.8	26.18	35.6	73.5	43.81	34.8	124.1
August	36.61	35.2	103.9	38.66	35.1	109.0	30.74	36.0	85.2	32.17	34.5	93.1	25.68	35.6	72.1	45.07	34.7	128.9
September	37.57	35.9	104.7	41.05	36.5	110.6	32.38	36.9	87.8	33.74	35.5	94.9	26.06	35.4	73.0	45.42	34.9	129.1
Apparel and other finished textile products—Continued																		
	Corsets and allied garments ²			Millinery			Handkerchiefs			Curtains, draperies, and bedspreads			Housefurnishings, other than curtains, etc.			Textile bags ³		
	Cents			Cents			Cents			Cents			Cents			Cents		
	\$17.15	37.5	45.6	\$22.19	33.8	63.6												
1939: Average	17.24	35.6	48.2	22.31	30.5	64.8												
1941: January																		
1946: September	33.72	38.2	88.5	50.81	37.3	120.2	\$28.36	35.0	81.2	\$28.31	35.8	79.9	\$36.36	38.9	93.6	\$32.48	38.5	84.8
October	35.02	38.7	90.7	47.73	36.4	127.3	29.44	36.0	81.9	29.45	36.5	81.7	33.06	36.4	90.3	33.02	39.0	85.2
November	35.29	38.4	91.9	39.98	32.3	119.6	30.89	37.0	83.7	29.52	36.1	82.3	35.91	39.4	90.5	33.29	38.6	86.0
December	35.39	38.6	91.7	42.91	34.5	119.5	31.83	38.2	83.6	28.88	35.0	82.8	35.85	39.5	90.5	34.78	39.7	86.5
1947: January	35.21	37.8	93.0	48.40	36.6	125.6	28.95	35.3	82.1	28.57	34.6	82.5	34.85	38.1	91.0	35.92	39.7	89.1
February	35.38	38.8	91.8	53.73	38.9	131.7	30.60	36.5	84.1	28.51	33.8	84.5	34.91	37.5	92.6	35.13	39.0	88.4
March	35.29	38.7	92.0	51.76	37.5	131.8	31.03	36.5	85.4	28.72	33.8	84.9	34.97	37.2	93.5	34.60	38.2	89.5
April	35.18	38.3	92.7	42.94	33.6	124.1	29.36	34.2	85.7	26.90	31.5	84.8	35.67	37.6	94.4	35.26	38.6	90.8
May	35.33	38.4	92.2	40.44	32.5	121.4	31.24	36.4	85.8	27.55	32.5	84.7	37.36	37.9	98.1	34.06	37.0	90.6
June	35.72	38.0	94.1	43.62	32.5	127.1	29.94	35.2	85.1	26.72	31.4	84.9	37.87	38.1	98.9	*34.02	37.1	91.8
July	34.95	37.5	93.5	49.22	36.2	129.8	31.13	36.3	85.7	29.09	36.1	81.6	36.44	38.4	94.5	35.48	38.3	92.5
August	34.80	36.7	94.2	49.69	36.2	131.4	30.40	35.5	85.7	28.93	36.1	81.6	37.73	38.6	97.7	35.34	37.8	93.6
September	35.87	37.5	95.2	49.97	35.6	134.6	31.85	36.7	86.7	30.72	37.2	83.4	38.33	38.2	99.6	35.86	38.1	94.1
Leather and leather products																		
	Total: Leather and leather products			Leather			Boot and shoe cut stock and findings			Boots and shoes			Leather gloves and mittens			Trunks and suitcases		
	Cents			Cents			Cents			Cents			Cents			Cents		
	\$19.13	36.2	52.8	\$24.43	38.7	63.4				\$17.83	35.7	50.3						
1939: Average	20.66	37.3	55.4	25.27	38.3	66.2				19.58	37.0	53.0						
1941: January																		
1946: September	37.49	38.2	98.2	44.60	39.5	112.9	\$36.48	39.0	93.8	36.18	37.9	95.5	\$33.68	37.0	91.9	\$39.56	39.3	100.2
October	37.07	37.5	98.7	44.78	39.7	112.9	36.24	38.7	93.6	35.65	36.9	96.0	33.48	36.9	91.5	40.85	40.0	102.0
November	37.24	37.1	100.4	45.98	40.2	114.4	35.78	37.4	96.1	35.76	36.3	97.8	32.69	35.7	92.3	40.63	39.7	102.0
December	39.83	39.1	101.8	47.71	41.6	115.0	37.32	38.7	97.0	38.65	38.8	99.5	32.16	35.5	91.0	41.70	40.1	103.4
1947: January	40.18	39.3	102.3	48.49	41.3	117.4	37.84	38.8	98.0	39.05	39.1	99.5	32.10	35.0	92.2	40.36	38.7	104.0
February	40.29	39.5	102.1	49.65	41.6	119.3	37.79	38.8	98.4	38.96	39.2	98.9	31.38	35.1	99.6	41.60	39.9	103.8
March	40.11	39.0	102.8	49.88	41.4	120.4	37.87	38.1	99.9	38.91	38.8	99.9	31.52	35.0	90.0	40.87	39.5	103.6
April	39.44	38.3	102.9	49.14	40.7	120.4	37.07	37.8	99.4	37.96	38.0	99.8	31.17	35.0	89.0	41.22	39.1	105.3
May	39.45	38.1	103.5	49.65	40.7	122.0	37.32	37.7	100.6	37.78	37.8	100.0	31.38	34.6	90.8	40.35	38.5	104.6
June	40.12	38.1	105.3	50.44	40.5	124.1	3											

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.

MANUFACTURING—Continued

Year and month	Food																	
	Total: Food			Slaughtering and meat packing			Butter ²			Condensed and evaporated milk			Ice cream			Flour		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$24.43	40.3	Cents	60.7	\$27.85	40.6	68.6	\$22.60	46.7	48.4	-----	-----	\$29.24	46.2	62.6	\$25.80	42.3	60.5
1941: January.....	24.69	39.0	63.3	26.84	39.3	68.1	22.84	44.6	50.9	-----	-----	29.41	44.2	65.3	25.27	41.0	60.8	
1946: September.....	43.59	43.0	101.3	41.11	35.9	114.4	41.38	46.7	88.2	\$43.95	47.6	92.4	46.48	46.8	95.6	52.21	49.1	100.4
October.....	43.85	42.4	103.5	43.06	37.5	114.7	41.39	46.5	89.2	43.41	46.7	92.9	47.54	47.6	96.8	52.45	48.8	107.6
November.....	44.84	42.9	104.6	51.15	44.9	113.7	40.09	44.7	89.5	43.16	46.3	93.3	46.86	46.0	97.6	51.77	48.2	107.5
December.....	46.93	44.4	105.8	51.73	46.4	111.9	42.20	46.9	90.7	44.50	46.5	95.7	48.84	46.6	100.4	54.61	50.3	108.7
1947: January.....	47.31	43.6	108.4	57.20	47.5	120.6	42.24	46.2	91.7	46.32	46.6	99.5	48.79	46.8	100.5	55.18	49.9	110.6
February.....	46.40	42.7	108.8	52.82	44.3	119.3	42.44	45.8	92.6	46.64	46.2	101.0	48.04	46.2	99.7	53.08	48.9	108.7
March.....	46.05	42.3	108.8	49.87	41.9	119.1	43.00	45.5	93.5	47.04	46.2	101.9	47.68	45.7	100.8	53.77	49.3	109.3
April.....	46.20	42.1	109.7	50.22	41.8	120.4	43.47	46.8	93.2	48.16	46.8	103.0	47.32	46.0	100.2	52.44	47.5	110.5
May.....	47.71	43.0	111.0	53.37	44.0	121.4	43.91	46.3	94.8	49.52	48.3	102.6	47.36	45.8	100.9	51.82	47.8	108.5
June.....	48.27	43.2	111.9	54.40	44.5	122.2	45.60	47.4	95.9	50.57	48.7	103.9	48.81	46.7	102.1	55.55	49.8	111.5
July.....	48.40	43.2	112.1	56.82	44.7	128.2	44.75	47.0	95.5	50.18	48.1	104.4	49.62	46.7	103.4	57.71	50.5	114.5
August.....	49.48	43.4	114.0	54.43	43.0	126.7	46.07	48.0	96.7	49.21	47.2	104.2	50.84	46.9	105.2	59.91	50.2	119.6
September.....	49.11	43.4	113.1	55.31	43.4	127.6	45.75	47.6	96.5	49.82	46.9	105.7	50.05	46.0	106.0	59.86	49.9	120.5
Food—Continued																		
Cereal preparations			Baking ²			Sugar refining, cane			Sugar, beet			Confectionery ²			Beverages, non-alcoholic			
		Cents			Cents			Cents			Cents			Cents			Cents	
1939: Average.....			\$25.70	41.7	62.1	\$23.91	37.6	63.6	\$24.68	42.9	58.5	\$18.64	38.1	49.2	\$24.21	43.6	55.6	
1941: January.....			26.46	41.1	64.4	22.73	35.0	65.0	24.03	36.5	63.0	19.19	37.6	51.1	25.28	42.0	60.2	
1946: September.....	47.15	42.4	111.2	44.60	44.5	100.3	38.35	37.9	101.2	48.87	42.8	114.1	36.14	40.0	87.3	39.87	43.9	90.4
October.....	48.28	42.0	114.9	45.45	43.6	104.2	37.40	37.4	100.1	40.86	40.5	100.9	35.04	39.5	87.4	39.30	42.4	91.8
November.....	47.12	40.7	115.7	46.01	44.0	104.5	40.07	40.8	98.2	49.59	48.6	102.1	36.79	39.8	90.5	39.66	42.4	92.8
December.....	47.81	40.9	117.0	47.55	45.3	105.1	45.62	44.6	102.4	54.35	52.1	104.4	38.19	41.4	90.2	41.37	43.2	94.9
1947: January.....	48.48	40.5	119.6	46.32	43.9	105.6	38.83	38.8	100.1	44.34	40.5	100.5	37.06	39.8	93.0	41.13	42.7	95.9
February.....	49.13	41.5	118.4	45.80	43.2	106.0	41.53	39.5	105.2	47.29	40.5	116.9	37.75	39.9	94.9	40.85	42.3	96.5
March.....	50.03	41.4	120.8	45.17	43.0	105.7	44.40	41.6	106.7	44.79	37.4	119.9	37.87	39.8	95.1	41.25	42.0	97.4
April.....	48.26	39.6	121.8	45.26	42.5	106.5	47.92	43.7	109.7	44.46	38.6	115.1	37.60	38.9	96.7	42.50	43.1	98.3
May.....	49.77	40.4	123.2	44.84	42.5	105.6	44.35	41.3	107.5	43.79	38.9	112.5	38.77	39.8	97.6	43.10	43.6	98.5
June.....	50.79	40.8	124.4	45.50	42.6	106.7	52.14	45.6	114.2	47.38	40.8	116.2	39.34	39.3	100.4	44.48	44.2	100.4
July.....	53.83	43.2	124.6	45.81	42.7	107.4	50.33	45.5	110.5	46.34	39.2	118.4	37.66	37.8	99.8	45.98	45.0	102.0
August.....	54.32	42.4	128.1	45.52	41.9	109.1	51.89	46.3	112.1	50.82	41.6	122.6	38.33	38.6	99.5	47.89	46.6	103.6
September.....	51.28	40.5	126.5	46.14	41.9	110.4	51.43	44.6	115.3	51.08	40.7	126.9	41.20	40.2	102.1	47.56	46.2	103.8
Food—Continued																		
Tobacco manufactures																		
Malt liquors			Canning and preserving			Total: Tobacco manufactures			Cigarettes			Cigars			Tobacco (chewing and smoking) and snuff			
		Cents			Cents			Cents			Cents			Cents			Cents	
1939: Average.....	\$35.01	38.3	91.6	\$16.77	37.0	46.4	\$16.84	35.4	47.6	\$20.88	37.2	56.1	\$14.59	34.7	41.9	\$17.53	34.1	51.4
1941: January.....	34.57	36.4	95.2	16.67	33.0	51.0	17.89	35.7	50.1	22.38	37.3	60.0	15.13	35.0	43.2	18.60	34.9	53.7
1946: September.....	57.45	42.7	134.4	41.50	43.5	96.0	35.25	39.5	89.3	39.25	40.3	97.4	32.69	39.0	83.4	31.87	38.0	83.9
October.....	56.57	42.5	133.0	40.82	41.7	98.3	36.47	40.3	90.5	41.08	41.6	98.8	33.48	39.6	84.4	32.66	38.7	84.4
November.....	56.68	42.5	133.3	35.28	37.3	95.0	36.66	39.7	92.4	41.74	41.1	101.5	33.27	38.6	85.7	33.58	39.2	85.7
December.....	59.74	43.7	136.7	37.93	38.8	98.2	38.12	40.2	94.7	43.03	40.9	105.3	34.85	39.9	87.1	34.25	39.1	87.7
1947: January.....	57.23	41.9	136.6	36.55	37.6	97.5	36.74	39.2	93.8	41.36	39.7	104.1	33.80	39.0	86.2	33.16	37.6	88.3
February.....	56.88	41.3	137.5	36.82	37.0	99.7	35.44	37.8	93.7	40.76	39.1	104.3	31.98	37.2	85.6	32.03	36.0	88.9
March.....	57.83	41.8	138.1	37.40	37.7	99.5	35.21	37.5	93.9	40.23	38.7	103.9	31.72	36.7	85.9	32.79	36.3	90.3
April.....	59.30	42.7	138.7	38.50	38.0	101.8	34.84	36.7	94.8	38.78	36.8	105.4	31.69	36.6	86.0	33.86	37.4	90.7
May.....	61.55	43.8	140.3	39.39	38.3	103.4	34.46	36.3	94.8	38.33	36.1	106.1	32.03	37.4	85.3	34.92	36.6	94.0
June.....	64.57	44.4	145.1	39.37	37.8	104.5	36.30	38.2	95.0	41.67	39.4	105.7	32.08	37.4				

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.
MANUFACTURING—Continued

Year and month	Paper and allied products															Printing, publishing, and allied industries					
	Total: Paper and allied products			Paper and pulp			Envelopes ²			Paper bags			Paper boxes			Total: Printing, publishing, and allied industries					
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings			
1939: Average.....	\$23.72	40.1	Cents	\$24.92	40.3	Cents	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Cents			
1941: January.....	25.16	40.0	62.9	27.02	40.8	66.2	-----	-----	-----	-----	-----	-----	-----	-----	-----	22.26	38.8	57.6	33.49	37.8	88.6
1946: September.....	44.57	43.0	103.7	47.55	43.8	108.5	\$41.60	42.6	97.6	\$37.89	40.9	93.1	41.53	42.2	98.5	53.96	41.0	121.5	1939		
October.....	45.61	43.4	105.0	49.05	44.5	110.2	42.15	42.6	98.1	38.98	40.8	96.0	42.02	42.5	99.0	54.28	41.0	132.5	1941		
November.....	46.08	43.3	106.4	49.37	44.4	111.1	42.98	42.6	103.1	38.78	40.1	97.0	42.74	42.4	100.9	55.11	41.0	148.3	1940		
December.....	46.87	43.7	107.1	49.92	44.6	111.9	44.51	43.0	103.5	39.96	40.7	98.3	43.61	42.2	101.2	57.08	41.5	137.4	1947		
1947: January.....	47.05	43.2	108.8	50.18	44.2	113.4	44.68	42.8	104.3	40.52	40.2	100.9	43.58	42.3	103.0	56.60	41.0	128.1	1939		
February.....	47.42	43.2	109.8	50.98	44.3	114.9	44.43	42.6	105.6	39.93	39.9	100.1	43.58	42.0	103.9	56.74	40.1	141.5	1941		
March.....	47.92	43.2	110.9	51.27	44.3	115.7	44.69	42.7	106.4	40.43	40.3	100.6	44.10	42.1	105.5	58.19	40.3	144.3	1940		
April.....	48.20	43.0	112.1	52.07	44.4	117.3	44.94	42.8	106.3	39.69	39.5	100.7	43.98	41.5	106.0	58.69	40.1	146.2	1947		
May.....	48.79	43.1	113.3	52.84	44.7	118.2	45.25	43.0	106.5	40.42	39.1	102.6	44.30	41.2	107.7	59.55	40.1	148.6	1939		
June.....	49.95	42.9	116.5	54.83	44.5	123.1	45.96	43.0	107.8	41.69	39.6	105.4	44.87	41.3	108.8	59.76	39.9	149.9	1941		
July.....	51.06	42.9	119.0	56.36	44.5	126.6	44.72	42.1	107.4	42.30	38.8	109.4	45.44	41.4	109.9	59.37	39.6	149.8	1940		
August.....	50.46	42.4	119.2	56.16	44.0	126.8	44.96	41.0	110.7	41.89	38.4	109.3	44.92	40.8	110.4	59.47	39.4	150.9	1947		
September.....	51.71	42.9	120.4	57.03	44.5	127.4	47.00	42.2	112.7	42.05	38.2	110.2	46.53	41.6	112.2	61.49	40.1	153.2	1939		
Printing, publishing, and allied industries—Continued																					
	Newspapers and periodicals			Printing, book and job			Lithographing			Total: Chemicals and allied products			Paints, varnishes, and colors			Drugs, medicines, and insecticides					
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			
	1939: Average.....	\$37.58	36.1	Cents	\$30.30	38.3	Cents	-----	-----	-----	\$25.59	39.5	Cents	\$28.48	40.5	Cents	-----	39.7	59.2	1939	
1941: January.....	35.15	35.4	105.2	31.64	39.6	51.0	-----	-----	-----	27.53	39.9	69.0	20.86	40.3	74.1	24.68	39.3	61.9	1941		
1946: September.....	60.04	39.4	149.5	51.50	42.0	123.2	\$53.99	42.9	125.8	45.41	40.9	111.0	46.52	41.4	112.4	39.05	39.5	98.7	1946		
October.....	60.28	39.3	151.1	51.50	41.7	123.8	55.08	43.4	127.0	45.50	41.3	110.2	47.07	41.6	113.4	39.91	40.2	99.0	1947		
November.....	61.11	39.3	152.8	52.60	41.9	125.9	55.76	42.9	129.9	45.88	41.3	111.2	48.16	41.8	115.4	41.06	40.2	101.9	1939		
December.....	62.95	39.3	156.9	54.98	42.7	129.5	57.55	44.1	130.6	47.14	41.6	113.3	49.17	42.2	116.6	42.01	40.6	103.5	1941		
1947: January.....	62.08	38.9	157.5	54.19	42.0	129.7	57.54	43.8	132.3	47.39	41.5	114.3	49.69	42.1	118.1	41.86	40.4	103.6	1940		
February.....	63.00	38.6	160.7	54.07	40.8	133.6	55.55	42.6	132.6	48.17	41.4	116.5	50.34	42.3	119.2	43.15	41.1	105.2	1946		
March.....	64.25	38.8	162.6	55.67	41.1	136.4	58.47	41.8	139.8	48.60	41.3	117.7	51.63	42.5	121.6	42.86	41.1	104.4	1947		
April.....	65.29	38.9	165.1	56.13	40.7	138.6	58.80	41.8	140.8	48.93	41.0	119.2	51.81	42.5	122.2	42.80	40.6	105.3	1939		
May.....	67.10	38.9	169.9	56.41	40.6	139.7	57.73	41.2	140.3	49.80	41.1	121.0	52.36	42.5	123.6	43.19	40.3	107.2	1941		
June.....	67.16	38.4	171.9	56.81	40.6	140.6	58.31	41.3	141.1	50.59	41.2	123.2	52.81	42.5	124.4	43.49	39.9	109.1	1940		
July.....	66.53	38.2	171.3	56.77	40.5	140.8	57.55	40.5	142.1	51.00	41.2	124.7	53.37	42.3	126.3	43.50	39.1	111.4	1947		
August.....	67.80	38.5	173.8	55.96	40.0	140.6	57.56	39.6	144.4	51.27	40.9	125.2	54.76	42.1	127.9	45.68	39.9	114.4	1939		
September.....	69.59	38.9	175.8	57.96	40.8	143.2	60.20	41.3	144.9	51.84	41.1	126.1	53.55	41.8	128.4	46.56	40.0	116.5	1941		
Chemicals and allied products—Continued																					
	Soap			Rayon and allied products			Chemicals, not elsewhere classified			Explosives and safety fuses			Ammunition, small-arms			Cottonseed oil					
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			
	1939: Average.....	\$28.11	39.8	Cents	\$24.52	37.9	Cents	\$31.30	40.0	78.4	\$20.99	38.8	77.3	\$22.68	39.0	Cents	\$13.70	44.3	30.2	1939	
1941: January.....	29.58	40.0	74.0	27.26	39.2	69.6	33.10	40.3	82.2	31.56	37.8	83.5	24.05	38.6	62.3	15.55	44.6	33.8	1941		
1946: September.....	47.30	40.5	116.7	43.55	39.3	110.7	52.61	41.1	128.1	50.98	41.3	123.3	44.05	39.1	112.7	31.93	49.9	64.0	1946		
October.....	47.85	41.0	116.6	42.98	39.2	109.7	52.87	41.4	127.8	50.26	40.7	123.4	45.80	40.4	113.3	33.47	51.9	64.5	1947		
November.....	48.08	40.8	117.9	43.31	39.1	110.7	52.98	41.1	128.8	49.53	39.8	124.3	46.98	40.9	114.8	35.14	52.6	66.8	1939		
December.....	52.93	43.3	122.2	43.76	39.2	111.7	54.15	41.2	131.6	51.68	40.7	127.0	47.38	41.2	115.0	36.49	53.6	68.1	1941		
1947: January.....	53.08	42.8	124.1	44.14	39.5	111.7	54.77	41.3	132.7	53.08	41.0	129.5	48.14	41.5	116.1	35.91	52.2	68.8	1946		
February.....	53.46	43.1	124.0	47.31	39.3	120.5	55.10	41.0	134.2	50.07	39.4	126.9	48.55	41.4	117.2	35.77	51.7	69.2	1947		
March.....	54.12	42.5	127.2	47.92	39.2	122.1	55.33	40.9	135.1	50.60	39.0	129.9	48.27	41.6	116.1	35.69	50.3	70.9	1939		
April.....	54.78	42.8	128.1	48.59	39.4	123.3	55.45	40.8	135.9	49.57	37.4	132.5	48.24	41.4	116.4	33.88					

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.
MANUFACTURING—Continued

Year and month	Chemicals and allied products—Con.			Products of petroleum and coal												Rubber products			
	Fertilizers			Total: Products of petroleum and coal			Petroleum refining			Coke and by-products			Roofing materials			Total: Rubber products			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	
1939: Average.....	\$14.71	35.8	Cents 41.2	\$32.62	36.5	Cents 80.4	\$34.97	36.1	Cents 97.4	-----	-----	-----	-----	-----	-----	\$27.84	36.9	Cents 75.4	
1941: January.....	14.89	34.8	42.9	32.46	36.6	88.7	34.46	35.7	97.0	-----	-----	-----	-----	-----	-----	30.38	39.0	77.9	
1946: September....	35.62	42.8	84.2	55.25	40.4	136.8	58.35	40.2	145.3	\$47.07	39.4	119.1	\$48.82	43.6	112.0	53.69	40.6	132.3	
October.....	33.87	41.0	82.7	54.38	40.4	134.7	57.32	40.2	142.8	46.34	39.2	117.7	49.46	44.2	112.0	51.74	39.4	131.3	
November.....	32.97	40.1	82.1	54.50	40.3	135.1	57.11	40.0	142.9	46.64	39.5	117.7	51.10	44.4	115.0	52.93	40.0	132.3	
December.....	34.64	42.1	82.4	54.55	40.0	136.2	57.80	40.4	143.4	43.56	36.7	119.1	50.92	44.1	115.6	54.63	41.1	133.1	
1947: January.....	23.44	41.3	81.0	55.24	40.2	137.2	57.74	39.9	144.7	48.11	39.5	121.2	51.99	44.6	116.7	54.03	40.6	133.0	
February.....	33.44	41.4	80.8	55.30	40.1	138.2	57.75	39.8	145.1	48.88	39.6	123.1	52.59	44.0	119.6	54.06	40.6	133.1	
March.....	34.42	42.3	81.4	55.53	40.2	140.8	59.15	39.8	148.8	49.95	39.6	123.1	53.14	44.6	119.3	52.97	39.8	133.0	
April.....	35.30	42.8	83.5	57.41	40.5	141.8	60.24	40.1	150.1	49.19	39.9	123.2	54.21	44.7	121.1	55.23	39.5	139.7	
May.....	36.76	42.9	85.7	57.92	40.0	144.8	60.01	39.5	152.0	51.93	39.7	130.7	55.40	45.1	122.9	55.30	39.0	141.6	
June.....	36.41	41.8	87.1	59.64	40.7	146.4	62.17	40.6	153.2	52.87	39.8	132.8	54.87	43.9	125.1	55.49	39.1	141.9	
July.....	37.04	41.8	88.6	60.57	40.5	149.5	64.12	40.7	157.0	50.45	37.8	133.5	56.09	44.5	126.0	55.74	38.6	144.5	
August.....	37.17	40.9	90.8	60.62	40.6	140.4	63.12	40.3	156.7	53.59	39.8	134.6	57.17	44.6	128.2	55.55	38.4	144.8	
September.....	38.85	41.8	93.0	61.97	40.9	151.4	64.75	40.7	159.1	54.25	39.8	136.3	57.56	44.7	128.7	57.32	39.5	145.0	
Rubber products—Continued																			
Rubber tires and inner tubes			Rubber boots and shoes			Rubber goods, other			Total: Miscellaneous industries			Instruments (professional and scientific), and fire-control equipment			Pianos, organs, and parts				
1939: Average.....	\$33.36	35.0	Cents 95.7	\$22.80	37.5	60.7	\$23.34	38.9	60.5	\$24.48	29.3	62.4	Cents	-----	-----	-----	-----	Cents	
1941: January.....	36.67	37.7	97.5	26.76	41.9	63.9	24.97	39.4	63.9	25.35	39.3	64.5	\$35.33	45.7	77.3	-----	-----	-----	
1946: September....	59.89	39.6	150.7	45.27	41.5	109.1	47.01	41.8	112.5	44.25	41.1	107.6	50.43	40.3	124.3	\$47.73	42.3	113.4	
October.....	57.38	38.2	149.2	38.93	37.3	104.3	47.00	41.6	113.0	45.04	41.4	108.8	51.23	40.6	125.2	48.31	42.0	115.1	
November.....	58.87	39.0	150.3	48.80	40.4	108.3	46.74	41.4	113.0	45.08	41.1	109.8	51.01	40.1	125.8	50.95	42.8	119.5	
December.....	60.46	39.8	151.3	45.93	42.0	109.3	48.68	42.6	114.3	45.85	41.6	110.3	52.20	40.7	126.9	47.65	40.5	118.0	
1947: January.....	59.78	39.5	151.1	46.06	41.9	109.9	48.12	42.0	114.6	45.98	41.1	112.0	52.00	40.1	127.3	53.37	42.5	125.9	
February.....	59.90	39.3	151.7	45.83	42.0	109.2	48.27	42.1	114.7	46.06	41.0	112.3	51.50	40.7	127.9	53.20	42.8	126.2	
March.....	58.05	38.3	151.2	44.91	41.2	109.0	48.28	41.8	115.4	46.71	41.0	113.9	51.95	39.8	128.6	51.42	41.0	125.7	
April.....	61.64	38.2	160.8	47.03	40.8	115.2	48.53	41.0	118.4	46.35	40.6	114.2	52.10	39.5	130.1	51.53	41.4	125.1	
May.....	61.12	37.6	162.2	48.27	40.7	118.5	48.81	40.6	120.1	46.50	40.3	115.3	51.81	38.9	131.2	52.02	41.4	128.5	
June.....	61.35	37.7	161.5	49.62	41.4	119.8	48.95	40.5	120.9	47.00	40.3	115.7	54.15	39.5	135.1	52.71	41.8	127.7	
July.....	62.06	37.9	164.0	48.06	40.5	118.7	48.22	39.1	123.2	46.37	39.4	117.8	53.55	40.1	135.0	51.57	40.8	126.9	
August.....	61.26	37.4	164.1	47.23	39.9	118.3	49.08	39.4	124.0	46.34	39.4	117.7	54.18	39.7	135.2	50.88	40.7	125.9	
September.....	63.80	38.5	166.1	49.92	41.8	119.4	50.40	40.4	123.7	47.92	40.2	119.1	54.75	39.4	135.7	54.84	42.1	131.2	
NONMANUFACTURING																			
Mining																			
Coal			Metal			Total: Metal			Iron			Copper			Lead and zinc				
Anthracite			Bituminous coal			Total: Metal			Iron			Copper			Lead and zinc				
1939: Average.....	\$25.67	27.7	Cents 92.8	\$23.88	27.1	88.6	\$28.93	40.9	70.8	\$26.36	35.7	73.8	\$28.08	41.9	Cents 67.9	\$26.80	38.7	Cents 68.3	
1941: January.....	25.18	27.0	92.5	26.00	29.7	88.5	30.63	41.0	74.7	29.26	39.0	75.0	30.93	41.8	74.9	28.61	38.2	74.9	
1946: September....	60.67	37.7	161.1	61.65	41.8	148.0	49.53	40.6	122.1	48.45	39.8	121.9	51.09	41.9	122.1	49.47	40.8	122.7	
October.....	61.82	39.2	159.3	62.49	42.9	146.0	49.63	41.0	121.0	48.06	40.3	119.3	51.66	42.3	122.0	40.23	40.2	122.4	
November.....	56.57	35.7	158.2	61.54	41.7	147.7	48.50	39.9	121.9	46.36	38.4	120.7	50.71	41.7	121.7	48.63	39.5	123.2	
December.....	65.82	40.9	161.5	69.56	46.7	149.1	52.04	42.2	123.2	47.89	39.7	120.7	55.46	45.1	122.9	53.69	42.8	126.8	
1947: January.....	62.40	39.1	159.4	60.54	46.7	149.1	50.65	41.2	122.9	46.18	39.1	118.1	54.38	44.0	123.7	52.43	40.9	128.3	
February.....	57.42	35.1	163.7	65.30	43.6	149.1	52.01	42.0	123.8	48.71	40.5	120.3	54.94	44.3	124.1	53.19	41.4	128.6	
March.....	64.84	39.8	163.2	64.90	43.7	148.4	51.63	41.6	124.1	48.54	40.2	120.8	54.58	44.1	123.6	52.62	40.6	129.5	
April.....	49.89	32.8	154.5	54.14	36.4	148.3	51.68	41.8	123.7	48.00	39.9	120.2	54.53	44.1	125.7	53.91	41.8	129.0	
May.....	59.15	37.2	159.3	65.51	44.3	147.0	53.96	42.2	127.8	52.62	40.9	1							

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.
NONMANUFACTURING—Continued

Year and month	Mining—Continued						Public utilities											
	Quarrying and nonmetallic			Crude petroleum production			Telephone ²			Telegraph ⁴			Electric light and power			Street railways and busses		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$21.61	39.2	55.0	\$34.09	38.3	87.3	\$31.94	39.1	82.2	-----	-----	-----	\$24.38	39.6	86.9	\$33.13	45.9	71.4
1941: January.....	22.06	38.2	57.6	33.99	37.7	88.5	32.52	39.7	82.4	-----	-----	-----	35.49	39.4	90.3	33.63	45.3	73.1
1946: September.....	47.97	46.1	104.2	53.19	39.9	133.4	44.10	38.5	114.8	\$40.98	44.8	91.4	52.78	41.0	129.1	54.50	47.5	111.0
October.....	48.28	46.1	104.7	53.72	41.2	130.8	44.30	39.1	113.7	47.37	44.4	106.7	53.18	41.9	128.4	55.62	47.7	113.0
November.....	47.40	45.4	104.5	54.25	40.4	133.4	44.40	39.3	113.1	46.25	43.5	106.3	53.61	41.6	130.2	54.64	47.3	112.5
December.....	48.07	45.8	105.2	53.15	39.5	134.6	42.98	38.0	113.2	45.94	43.2	106.2	54.58	41.4	133.7	55.26	47.9	114.2
1947: January.....	45.55	43.1	105.8	56.02	41.3	135.5	43.37	38.4	113.2	46.83	43.8	106.9	54.11	41.9	131.3	55.98	47.7	116.5
February.....	45.34	42.8	106.2	55.86	40.3	139.0	43.31	38.0	114.1	51.23	44.0	116.4	55.37	41.6	135.2	56.70	48.0	117.4
March.....	46.41	43.5	106.9	56.25	39.6	142.1	42.51	37.9	112.4	50.91	43.7	116.4	54.43	41.0	134.1	56.82	47.8	118.4
April.....	48.67	44.5	108.0	58.74	40.8	144.4	32.26	26.9	117.4	59.27	47.3	125.2	55.90	42.2	134.3	56.94	47.8	119.0
May.....	49.86	45.6	110.2	58.71	40.5	144.8	38.13	31.5	118.9	57.17	46.0	124.2	55.90	41.6	135.8	56.90	47.6	119.5
June.....	50.92	45.6	112.1	61.46	41.9	147.5	45.58	37.5	121.8	55.36	44.8	123.6	57.84	42.2	138.8	57.71	47.4	121.2
July.....	51.26	45.2	112.9	60.01	40.6	148.1	46.51	38.4	121.1	54.88	44.8	122.6	56.99	42.1	137.4	57.65	46.3	123.1
August.....	52.99	46.1	114.6	59.76	40.1	148.7	46.02	38.7	121.5	55.01	44.8	122.8	57.97	42.4	137.8	58.00	46.6	124.1
September.....	53.45	46.1	115.6	61.60	40.3	151.1	47.84	38.9	123.0	54.95	44.5	123.4	58.29	42.0	139.0	58.57	46.1	126.5
Trade																		
Wholesale	Retail						Retail											
	Total: Retail			Food			General merchandise			Apparel			Furniture and house-furnishings					
1939: Average.....	\$29.85	41.7	Cents 71.5	\$21.17	43.0	Cents 53.6	\$23.37	43.9	Cents 52.5	\$17.80	38.8	Cents 45.4	\$21.23	38.8	Cents 54.3	\$28.62	44.5	Cents 66.0
1941: January.....	30.59	40.6	75.6	21.53	42.9	54.9	23.78	43.6	53.7	18.22	38.8	46.6	21.86	39.0	56.0	27.96	43.9	66.6
1946: September.....	49.54	41.8	117.9	33.76	40.8	90.8	40.08	41.0	94.0	28.57	36.7	75.6	35.26	37.2	95.4	46.59	43.9	108.0
October.....	49.44	41.9	117.2	33.19	40.1	90.7	40.16	41.0	94.3	27.65	35.7	75.7	34.98	36.5	96.0	45.84	43.3	107.4
November.....	49.80	41.6	118.6	33.04	39.7	91.7	40.42	40.3	97.2	27.63	35.5	76.0	34.74	36.4	96.2	47.26	43.6	110.1
December.....	51.20	42.3	120.2	34.06	40.3	91.9	41.19	40.8	98.1	29.33	36.4	76.5	35.52	36.9	96.8	49.39	43.8	115.2
1947: January.....	50.05	41.5	119.7	35.02	39.9	95.3	41.50	40.1	101.2	29.75	35.9	81.1	35.89	36.9	95.7	45.86	42.2	112.5
February.....	50.87	40.8	123.0	35.27	40.1	95.7	42.04	40.4	101.9	29.98	36.1	80.9	35.85	37.3	95.6	45.85	41.9	111.6
March.....	50.80	40.8	123.1	35.31	40.0	96.0	41.67	40.1	102.2	29.91	36.0	80.9	35.99	36.8	97.5	46.96	42.1	115.2
April.....	51.13	41.2	122.9	35.93	40.0	97.4	42.39	40.0	102.9	30.60	36.1	82.3	37.07	36.8	99.9	47.82	42.4	117.0
May.....	51.57	41.2	124.1	36.50	40.0	98.5	43.29	40.0	104.9	31.24	36.0	84.2	36.98	36.9	99.7	49.01	42.5	119.6
June.....	52.88	41.6	126.2	37.82	40.8	99.6	44.57	41.0	105.7	32.41	37.2	84.8	37.86	37.2	100.9	50.20	43.2	120.2
July.....	52.22	41.1	125.7	37.99	41.1	100.3	45.07	41.6	106.2	32.59	37.2	85.5	37.82	37.3	99.8	49.51	43.0	119.9
August.....	52.05	41.1	125.8	38.14	41.1	100.2	45.37	42.5	104.3	32.50	37.2	85.7	37.21	37.1	99.5	49.41	42.6	119.4
September.....	52.86	41.2	126.9	37.54	40.2	100.9	44.04	40.7	105.1	31.73	36.3	85.4	37.62	37.0	100.9	50.23	42.6	121.5

See footnotes at end of table.

TABLE C-1: Average Earnings and Hours in Manufacturing and Nonmanufacturing Industries¹—Con.
NONMANUFACTURING—Continued

Year and month	Trade—Continued						Finance ²		Service									
	Retail—Continued						Secu- rity broker- age	Insur- ance	Hotels ³ (year-round)				Power laundries			Cleaning and dyeing		
	Automotive			Lumber and build- ing materials					Avg. wkly. earn- ings	Avg. wkly. hours	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. wkly. earn- ings	Avg. wkly. hours
1939: Average.....	\$27.07	47.6	Cents	\$26.22	42.7	61.9	\$36.63	\$36.32	\$15.25	46.6	32.4	\$17.60	42.7	41.7	\$19.96	41.8	49.0	
1941: January.....	28.26	46.8		60.6	26.16	41.7	63.4	38.25	37.52	15.65	45.9	33.8	18.37	42.9	42.9	19.92	41.9	48.8
1946: September.....	49.15	46.5	107.7	43.60	43.1	102.4	63.50	50.63	26.98	43.5	62.0	30.45	42.9	70.8	35.81	42.9	83.9	
October.....	48.82	46.1	107.9	43.70	43.1	103.3	62.24	51.20	27.27	43.8	62.6	30.52	43.0	70.8	35.81	42.2	85.4	
November.....	48.74	46.1	108.7	43.32	42.3	104.0	62.00	51.24	28.15	43.8	64.2	31.05	42.6	72.9	35.32	41.9	85.4	
December.....	50.61	47.2	109.3	44.78	43.5	103.7	63.78	52.25	28.40	43.7	65.1	32.13	43.5	73.9	36.50	42.8	86.7	
1947: January.....	49.01	45.7	109.2	44.30	43.0	104.3	62.56	52.46	28.62	43.8	64.8	32.46	43.3	74.5	36.29	42.3	87.4	
February.....	49.69	45.7	109.8	45.31	43.0	106.1	63.87	53.04	28.91	44.3	65.4	31.78	42.5	74.8	34.93	41.1	86.1	
March.....	49.58	45.4	110.8	45.74	43.3	106.8	62.91	52.18	29.00	44.7	64.2	32.18	42.4	75.9	36.41	42.0	87.6	
April.....	50.45	45.5	112.5	45.70	42.8	107.8	61.36	52.65	29.41	44.9	64.2	32.37	42.8	75.7	36.77	41.9	88.8	
May.....	50.54	45.6	112.4	46.32	42.9	109.0	61.06	52.35	29.23	45.0	64.3	32.45	42.7	75.6	37.70	42.6	89.4	
June.....	52.25	46.0	114.1	47.43	43.3	110.4	63.72	53.75	29.85	45.2	65.0	33.21	42.8	76.7	38.10	42.9	89.8	
July.....	50.59	45.4	114.6	46.46	42.5	110.5	62.11	52.60	29.36	44.9	65.2	32.95	42.6	76.9	37.34	42.1	89.9	
August.....	51.50	45.5	114.4	48.49	43.0	112.2	58.42	52.55	29.50	45.0	66.0	32.79	42.2	77.5	35.86	40.8	89.2	
September.....	51.55	45.3	115.9	48.64	42.3	113.5	59.32	51.84	29.90	44.1	67.3	33.44	42.5	78.8	37.67	41.9	91.1	

¹ These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during any part of the pay period ending nearest the 15th of September 1947. The figures shown below relate to firms reporting man-hour data in all cases except security brokerage and insurance; weekly earnings are based on a slightly larger sample.

Manufacturing: 31,700 establishments; 7,154,000 production workers.

Mining: 2,500 establishments; 314,000 production workers.

Public utilities: 7,000 establishments; 721,000 employees.

Wholesale trade: 9,100 establishments; 251,000 employees.

Retail trade: 28,000 establishments; 699,000 employees.

Finance: 4,000 establishments; 184,000 employees.

Hotels (year-round): 1,000 establishments; 87,000 employees.

Power laundries and cleaning and dyeing: 1,300 establishments; 60,000 production workers.

For manufacturing, mining, power laundries, and cleaning and dyeing industries, the data relate to production workers only. For the remaining industries unless otherwise noted, the data relate to all employees except high paid executives and officials. Data for the two current months are subject to revision without notation. Revised data for earlier months are identified by an asterisk.

^a New series beginning with month and year shown below; not comparable with data shown for earlier periods:

Metal doors, sash, frames, molding, and trim.—January 1947; comparable December 1946 data are \$53.33, 43.2 hours, and 121.2 cents.

Steel barrels, kegs, and drums.—January 1947; comparable December 1946 data are \$49.09 and 116.9 cents.

Washing machines, wringers and dryers, domestic.—January 1947; comparable December 1946 data are \$49.81 and 119.4 cents.

Refrigerators and refrigeration equipment.—February 1947; comparable January data are \$51.05.

Cars, electric- and steam- railroad.—March 1947; comparable February data are 130.3 cents.

Aluminum manufactures.—January 1947; comparable December 1946 data are \$48.34.

Corsets and allied garments.—February 1947; comparable January data are \$34.41 and 91.5 cents.

Textile bags.—June 1947; comparable May data are \$33.53.

Butter.—January 1947; comparable December 1946 data are 47.5 hours and 88.8 cents.

Baking.—May 1947; comparable April data are \$43.62, 41.9 hours, and 103.9 cents.

Confectionery.—January 1947; comparable December 1946 data are 91.8 cents.

Envelopes.—February 1947; comparable January data are \$44.12.

^b Data for April and May reflect work stoppages.

^c Data relate to all line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.

^d Data on average weekly hours and average hourly earnings are not available.

^e Money payments only; additional value of board, room, uniforms, and tips, not included.

^f Revised.

TABLE C-2: Estimated Average Hourly Earnings, Exclusive of Overtime,¹ of Production Workers in Manufacturing Industries

Year and month	All manufacturing			Durable goods			Nondurable goods			Year	
	Based on distribution of total man-hours worked among major industry groups										
	As currently reported	As reported in January 1941		As currently reported	As reported in January 1941		As currently reported	As reported in January 1941			
		Absolute value	Index January 1941-100		Absolute value	Index January 1941-100		Absolute value	Index January 1941-100		
1941: January	66.4	Cents 66.4	100.0	Cents 72.2	Cents 72.2	100.0	Cents 60.1	Cents 60.1	100.0	1940: A	
1942: January	76.2	75.1	113.1	83.5	82.6	114.4	67.0	66.8	111.1	1941: J	
October	83.9	80.7	121.5	91.9	88.8	123.0	72.8	71.8	119.5		
1943: January	85.9	81.9	123.3	94.1	90.5	125.3	73.3	72.6	120.8	1946: S	
October	91.6	86.3	130.0	99.7	95.0	131.6	78.1	76.8	127.8	O	
1944: January	93.1	87.7	132.1	101.3	96.5	133.7	79.3	78.0	129.8	N	
October	95.6	90.8	136.7	103.8	99.1	127.3	82.9	81.7	135.9	D	
1945: January	97.0	92.0	138.6	105.3	100.5	139.2	84.0	82.7	137.6	1947: J	
October	94.6	94.2	141.9	102.1	101.4	140.4	87.0	86.3	143.6	F	
1946: September	109.2	109.4	164.8	116.6	117.2	162.3	101.5	100.8	167.7	M	
October	109.3	109.5	164.9	116.3	116.9	161.9	102.1	101.4	168.7	A	
November	110.3	110.5	166.4	117.5	118.1	163.6	103.0	102.2	170.0	N	
December	110.7	110.6	166.6	117.8	117.8	163.2	103.6	102.7	170.9	J	
1947: January	112.2	112.0	168.7	118.6	118.8	164.5	105.5	104.6	174.0	J	
February	113.3	113.1	170.3	119.2	119.4	165.4	107.0	106.2	176.7		
March	114.2	113.9	171.5	119.6	119.8	165.9	108.4	107.6	179.0		
April	115.1	114.6	172.6	120.5	120.6	167.0	109.0	108.0	179.7		
May	117.0	116.7	175.8	123.8	124.3	172.2	109.6	108.5	180.5		
June	118.7	118.4	178.3	126.1	126.5	175.2	110.5	109.4	182.0		
July	119.5	119.4	179.8	127.0	127.5	176.6	111.6	110.5	183.9		
August	120.3	120.5	181.5	127.7	128.6	178.1	112.5	111.5	185.5		
September	120.9	121.2	182.5	128.9	129.5	179.4	112.7	112.0	186.4		

¹ Overtime is defined as work in excess of 40 hours per week and paid for at time and one-half. The method of estimating average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on holidays. Data for the months of January, July, September, and November, therefore, may not be precisely comparable with data for the

other months in which important holidays are seldom included in the reporting pay period. This characteristic of the data does not appear to invalidate the comparability of the figure for January 1941 with those for the following months.

TABLE C-3: Average Earnings and Hours on Private Construction Projects, by Type of Firm¹

Year and month	Building construction														1940: A 1941: J 1946: S 1947: J			
	All types, private construction projects				Total building				General contractors				Special building trades					
	Average weekly earnings ²	Average weekly hours	Average weekly earnings ²	Average weekly earnings ²	Average weekly hours	Average weekly earnings ²	Average weekly hours	Average weekly earnings ²	Average weekly earnings ²	Average weekly hours	Average weekly earnings ²	Average weekly hours	Average weekly earnings ²	Average weekly hours	Average weekly earnings ²			
1940: Average	(4)	(4)	(4)	\$31.70	33.1	\$0.958	\$30.56	33.3	\$0.918	\$33.11	32.7	\$1.012	\$32.87	34.6	\$0.949	\$33.05	32.5	\$1.016
1941: January	(4)	(4)	(4)	32.18	32.6	.986	30.10	32.7	.946	33.42	32.6	1.023	34.16	35.8	.955	31.49	30.7	1.062
1946: September	58.39	39.3	\$1.485	58.49	38.7	1.510	55.64	38.4	1.450	61.87	39.2	1.580	63.70	40.2	1.584	62.06	38.6	1.609
October	58.93	39.2	1.505	59.20	38.8	1.526	56.39	38.5	1.463	62.20	39.1	1.595	63.89	40.1	1.593	62.16	38.4	1.620
November	57.38	37.6	1.527	57.65	37.2	1.549	54.68	36.8	1.485	61.11	37.7	1.622	62.62	38.6	1.620	57.39	35.2	1.629
December	59.92	38.8	1.545	60.32	38.4	1.569	56.73	38.0	1.495	64.53	40.0	1.655	67.44	40.8	1.655	61.05	38.9	1.653
1947: January	59.38	37.9	1.563	59.97	37.6	1.594	56.49	37.2	1.518	64.00	38.1	1.680	67.16	39.9	1.681	58.83	35.0	1.637
February	58.67	37.4	1.569	58.92	36.9	1.598	54.91	36.2	1.516	63.65	37.6	1.691	66.65	39.3	1.694	58.75	36.3	1.619
March	60.63	38.3	1.585	61.23	38.0	1.610	58.02	37.9	1.531	64.92	38.2	1.609	68.89	39.2	1.705	60.10	37.1	1.619
April	60.11	37.4	1.607	60.53	37.1	1.634	58.32	36.2	1.554	65.43	38.0	1.723	67.37	38.7	1.739	60.87	36.6	1.663
May	61.93	38.1	1.627	62.38	37.7	1.656	58.21	36.9	1.578	67.08	38.5	1.741	68.24	38.7	1.761	63.71	37.2	1.711
June	62.22	38.2	1.630	62.68	37.7	1.661	58.55	36.9	1.586	67.63	38.7	1.747	67.71	38.9	1.740	63.52	37.4	1.697
July	63.00	38.4	1.643	63.30	37.9	1.669	59.63	37.6	1.586	67.82	38.4	1.768	68.66	38.7	1.775	63.59	36.9	1.724
August	66.13	39.8	1.662	66.97	39.7	1.689	65.47	40.7	1.607	68.88	38.5	1.791	69.56	38.9	1.790	66.32	37.4	1.774
September	64.98	38.4	1.694	65.22	38.0	1.718	60.90	37.2	1.636	70.64	38.9	1.817	71.37	39.2	1.823	66.22	37.4	1.770

See footnotes at end of table.

TABLE C-3: Average Earnings and Hours on Private Construction Projects, by Type of Firm¹—Con.

Year and month	Building construction—Continued																	
	Special building trades—Continued																	
	Electrical work			Masonry			Plastering and lathing			Carpentry			Roofing and sheet metal			Excavation and foundation		
	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings ³	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings ³										
1940: Average.....	\$41.18	34.5	\$1.196	\$29.47	29.8	\$0.988	\$36.60	28.5	\$1.286	\$31.23	33.0	\$0.947	\$28.07	31.8	\$0.883	\$26.53	30.9	\$0.859
1941: January.....	43.18	36.5	1.184	25.66	25.3	1.012	35.36	27.5	1.287	30.40	31.2	.974	27.60	30.3	.910	23.86	29.1	.820
1946: September.....	69.66	41.1	1.696	58.53	38.1	1.537	65.21	38.3	1.703	58.68	39.8	1.473	54.06	38.3	1.412	54.88	38.4	1.431
October.....	70.59	40.8	1.732	58.70	38.0	1.544	66.43	38.5	1.727	59.95	39.1	1.531	54.33	37.5	1.448	51.85	37.9	1.369
November.....	69.63	39.8	1.750	57.56	37.4	1.541	63.13	35.3	1.788	57.64	38.3	1.504	50.95	36.1	1.413	52.10	36.4	1.431
December.....	74.76	41.4	1.808	58.36	37.5	1.556	71.04	38.7	1.837	57.85	38.2	1.513	52.84	36.4	1.450	54.94	37.9	1.450
1947: January.....	73.85	40.2	1.838	56.49	34.9	1.618	69.81	37.9	1.842	58.20	37.7	1.544	51.49	34.9	1.477	53.98	36.3	1.487
February.....	74.95	40.8	1.836	52.41	32.4	1.619	66.84	36.3	1.840	57.69	37.8	1.528	50.59	34.1	1.483	55.00	37.2	1.477
March.....	75.75	40.5	1.872	57.37	35.1	1.637	69.15	37.9	1.822	62.98	39.6	1.591	53.67	35.8	1.497	58.36	37.7	1.550
April.....	76.31	40.5	1.885	57.36	34.6	1.656	72.40	38.2	1.894	61.01	37.9	1.611	54.02	36.0	1.499	56.07	36.5	1.537
May.....	76.33	40.4	1.890	62.01	37.2	1.668	74.95	38.9	1.926	62.67	38.9	1.612	57.43	37.2	1.542	59.70	38.5	1.552
June.....	77.48	40.6	1.909	63.54	37.2	1.706	73.67	38.2	1.927	61.40	38.6	1.689	58.13	37.6	1.547	60.48	37.9	1.594
July.....	76.98	39.6	1.943	63.25	37.3	1.694	73.14	37.5	1.950	60.15	38.1	1.579	59.35	37.2	1.594	60.33	37.8	1.506
August.....	77.05	39.2	1.963	65.12	38.3	1.699	75.54	38.0	1.988	68.17	39.7	1.716	60.06	37.3	1.610	63.12	39.1	1.616
September.....	79.90	40.2	1.987	66.10	38.1	1.736	76.05	38.1	1.995	65.75	39.0	1.684	63.36	37.9	1.670	64.27	39.8	1.613
Year and month	Nonbuilding construction																	
	Total nonbuilding			Highway and street			Heavy construction			Other								
	Avg. wkly. earnings^{2}	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings^{2}	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings^{2}	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings
	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
1940: Average.....	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
1941: January.....	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
1946: September.....	\$57.90	42.2	\$1.372	\$55.71	42.0	\$1.327	\$59.86	42.6	\$1.407	\$54.46	41.3	\$1.317						
October.....	57.59	41.0	1.403	54.41	40.9	1.330	59.56	41.0	1.463	55.02	41.3	1.331						
November.....	56.13	39.2	1.433	53.24	39.0	1.366	57.41	39.0	1.470	54.96	39.8	1.381						
December.....	58.02	40.5	1.434	55.19	39.9	1.383	59.11	40.3	1.466	57.44	41.4	1.387						
1947: January.....	56.67	39.0	1.451	52.23	37.3	1.401	57.94	39.1	1.482	56.61	40.5	1.398						
February.....	57.49	39.9	1.441	53.83	39.1	1.378	59.15	40.2	1.472	55.44	39.7	1.395						
March.....	57.82	39.3	1.473	53.72	38.0	1.412	58.98	39.2	1.504	57.83	40.5	1.429						
April.....	58.30	38.9	1.499	52.82	37.4	1.411	60.48	39.2	1.542	57.13	39.4	1.451						
May.....	60.01	39.8	1.508	54.26	38.7	1.404	62.50	40.1	1.559	58.60	40.2	1.459						
June.....	60.17	40.1	1.501	56.92	40.4	1.408	61.36	39.7	1.544	60.02	40.8	1.473						
July.....	61.72	40.2	1.536	58.19	40.6	1.434	64.01	40.0	1.599	58.49	40.2	1.454						
August.....	62.63	40.3	1.554	57.66	40.2	1.436	65.43	40.3	1.623	58.92	40.4	1.457						
September.....	63.90	40.2	1.588	59.96	40.1	1.496	66.80	40.1	1.665	58.13	40.8	1.426						

¹ Covers all contract construction firms reporting to the Bureau during the months shown (over 11,000), but not necessarily identical establishments. The data include all employees of these construction firms working at the site of privately financed projects (skilled, semiskilled, unskilled, superintendents, time clerks, etc.). Employees of these firms engaged on publicly financed projects and off-site work are excluded.

² Includes types not shown separately.

³ Hourly earnings, when multiplied by weekly hours of work, may not exactly equal weekly earnings because of rounding.

* Not available prior to February 1946.

⁴ Includes general contracting as well as general building maintenance, and other special building data.

D: Prices and Cost of Living

TABLE D-1: Consumers' Price Index¹ for Moderate-Income Families in Large Cities, by Group of Commodities

[1935-39 = 100]

Year and month	All items	Food	Apparel	Rent	Fuel, electricity, and ice			Housefurnishings	Miscellaneous
					Total	Gas and electricity	Other fuels and ice		
1913: Average	70.7	79.9	69.3	92.2	61.9	(1)	(2)	59.1	50.9
1914: July	71.7	81.7	69.8	92.2	62.3	(1)	(2)	60.8	52.0
1918: December	118.0	149.6	147.9	97.1	90.4	(3)	(2)	121.2	83.1
1920: June	149.4	185.0	209.7	119.1	104.8	(3)	(2)	169.7	100.7
1929: Average	122.5	132.5	115.3	141.4	112.5	(3)	(2)	111.7	104.6
1932: Average	97.6	86.5	90.8	116.9	103.4	(3)	(2)	85.4	101.7
1939: Average	99.4	95.2	100.5	104.3	90.0	98.9	90.3	101.3	100.7
August 15	98.6	93.5	100.3	104.3	97.5	99.0	96.3	100.6	100.4
1940: Average	100.2	96.6	101.7	104.6	99.7	98.0	101.6	100.5	101.1
1941: Average	105.2	105.5	106.3	106.2	102.2	97.1	107.4	107.3	104.0
January 1	100.8	97.6	101.2	105.0	100.8	97.5	104.0	100.2	101.8
December 15	110.5	113.1	114.8	108.2	104.1	96.7	111.3	116.8	107.7
1942: Average	116.5	123.9	124.2	108.5	105.4	96.7	113.9	122.2	110.9
1943: Average	123.6	138.0	129.7	108.0	107.7	96.1	119.0	125.6	115.8
1944: Average	125.5	136.1	138.8	108.2	109.8	95.8	123.4	136.4	121.3
1945: Average	128.4	139.1	145.9	108.3	110.3	95.0	125.1	145.8	124.1
August 15	129.3	140.9	146.4	(1)	111.4	95.2	127.2	146.0	124.5
1946: Average	139.3	159.6	160.2	108.6	112.4	92.4	132.0	159.2	128.8
June 15	133.3	145.6	157.2	108.5	110.5	92.1	128.4	156.1	127.9
September 15	145.9	174.1	165.9	108.8	114.4	91.7	136.5	165.6	129.9
October 15	148.6	180.0	168.1	(1)	114.4	91.6	136.6	168.5	131.0
November 15	152.2	187.7	171.0	(1)	114.8	91.8	137.2	171.0	132.5
December 15	153.3	185.9	176.5	(1)	115.5	92.0	138.3	177.1	136.1
1947: January 15	153.3	183.8	179.0	108.8	117.3	91.9	142.1	179.1	137.1
February 15	153.2	182.3	181.5	108.9	117.5	92.2	142.3	180.8	137.4
March 15	156.3	180.5	184.3	109.9	117.6	92.2	142.5	182.3	138.2
April 15	156.2	188.0	184.9	109.0	118.4	92.5	143.8	182.5	139.2
May 15	156.0	187.6	185.0	109.2	117.7	92.4	142.4	181.9	139.0
June 15	157.1	190.5	185.7	109.2	117.7	91.7	143.0	182.6	139.1
July 15	158.4	193.1	184.7	110.0	119.5	91.7	146.6	184.3	139.5
August 15	160.3	196.5	185.9	111.2	123.8	92.0	154.8	184.2	139.8
September 15	163.8	203.5	187.6	113.6	124.6	92.1	156.3	187.5	140.8

¹ The "consumers' price index for moderate-income families in large cities," formerly known as the "cost of living index" measures average changes in retail prices of selected goods, rents, and services weighted by quantities bought in 1934-36 by families of wage earners and moderate-income workers in large cities whose incomes averaged \$1,524 in 1934-36.

Bureau of Labor Statistics Bulletin 699, Changes in Cost of Living in Large Cities in the United States, 1913-41, contains a detailed description of methods used in constructing this index. Additional information on the consumers' price index is given in a compilation of reports published by the Office of Economic Stabilization, Report of the President's Committee on the Cost of Living.

Mimeographed tables are available upon request showing indexes for each of the cities regularly surveyed by the Bureau and for each of the major groups of living essentials. Indexes for all large cities combined are available since 1913. The beginning date for series of indexes for individual cities varies from city to city but indexes are available for most of the 34 cities since World War I.

² Data not available.

³ Rents not surveyed this month.

TABLE D-2: Consumers' Price Index for Moderate-Income Families by City,¹ for Selected Periods

[1935-39=100]

City	Sept. 15, 1947	Aug. 15, 1946	July 15, 1947	June 15, 1947	May 15, 1947	Apr. 15, 1947	Mar. 15, 1947	Feb. 15, 1947	Jan. 15, 1947	Dec. 15, 1946	Nov. 15, 1946	Oct. 15, 1946	Sept. 15, 1946	June 15, 1946	Aug. 15, 1939
Average.....	163.8	160.3	158.4	157.1	156.0	156.2	156.3	153.2	153.3	153.3	152.2	148.6	145.9	133.3	98.6
Atlanta, Ga.....	(2)	162.2	(2)	159.1	(2)	160.9	(2)	155.8	(2)	155.8	(2)	146.5	133.8	98.0	
Baltimore, Md.....	167.8	(2)	(2)	160.5	159.4	159.7	159.6	155.9	156.2	155.7	154.9	150.9	148.1	135.6	98.7
Birmingham, Ala.....	169.1	166.6	164.1	162.1	160.7	161.7	162.0	158.1	158.7	158.5	157.9	150.4	147.1	136.5	98.5
Boston, Mass.....	158.6	154.5	151.9	150.3	148.6	149.4	150.3	147.4	148.7	148.2	146.1	144.6	141.6	127.9	97.1
Buffalo, N. Y.....	(2)	(2)	159.1	157.7	156.2	155.3	155.3	152.4	152.7	151.7	149.6	146.5	144.9	132.6	98.5
Chicago, Ill.....	168.3	162.7	160.1	158.3	156.8	155.7	156.2	152.8	153.0	153.0	152.5	149.5	146.1	130.9	98.7
Cincinnati, Ohio.....	166.3	162.2	160.4	158.5	156.8	157.2	157.0	153.2	152.6	152.7	152.9	146.5	145.4	132.2	97.3
Cleveland, Ohio.....	(2)	163.0	(2)	160.3	159.0	159.2	159.2	155.9	156.1	156.2	154.0	149.5	147.6	135.7	100.0
Denver, Colo.....	(2)	(2)	155.7	155.9	155.8	155.8	154.8	152.2	151.4	152.5	151.9	143.7	142.5	131.7	98.6
Detroit, Mich.....	164.2	162.8	160.2	158.7	156.8	156.7	156.5	153.1	153.0	153.1	152.0	148.8	146.6	136.4	98.5
Houston, Tex.....	162.1	159.7	158.4	157.6	157.6	158.6	157.1	154.1	153.9	152.3	150.0	144.2	142.8	130.5	100.7
Indianapolis, Ind.....	(2)	(2)	159.5	158.0	(2)	(2)	157.5	(2)	(2)	154.2	(2)	(2)	146.1	131.9	98.0
Jacksonville, Fla.....	168.5	(2)	(2)	163.5	(2)	(2)	163.4	(2)	(2)	158.8	(2)	(2)	150.2	138.4	98.5
Kansas City, Mo.....	(2)	(2)	150.5	149.5	150.5	151.0	150.8	148.7	147.7	147.0	146.8	142.1	141.1	129.4	98.6
Los Angeles, Calif.....	161.6	157.8	157.2	156.3	157.6	157.4	156.9	155.9	155.3	154.5	154.5	148.5	145.5	136.1	100.5
Manchester, N. H.....	(2)	(2)	162.1	160.4	(2)	(2)	158.1	(2)	(2)	156.5	(2)	(2)	147.0	134.7	97.8
Memphis, Tenn.....	160.0	(2)	(2)	160.6	(2)	(2)	158.8	(2)	(2)	156.3	(2)	(2)	146.2	134.5	97.8
Milwaukee, Wis.....	(2)	159.0	(2)	156.6	(2)	(2)	154.5	(2)	(2)	150.6	(2)	(2)	142.8	131.2	97.0
Minneapolis, Minn.....	162.1	(2)	(2)	152.9	151.5	151.4	151.6	149.0	148.3	149.7	148.8	145.9	142.4	129.4	99.7
Mobile, Ala.....	164.3	(2)	(2)	159.3	(2)	(2)	159.2	(2)	(2)	153.6	(2)	(2)	145.2	132.9	98.6
New Orleans, La.....	(2)	168.5	(2)	164.6	(2)	(2)	164.5	(2)	(2)	162.9	(2)	(2)	153.8	138.0	99.7
New York, N. Y.....	161.9	158.6	157.5	156.9	155.6	156.8	157.4	154.2	154.6	155.2	154.3	152.8	149.4	135.8	99.0
Norfolk, Va.....	(2)	163.6	(2)	160.9	(2)	(2)	160.9	(2)	(2)	157.6	(2)	(2)	148.8	135.2	97.8
Philadelphia, Pa.....	163.2	159.5	158.3	157.1	155.1	154.9	156.1	151.6	152.3	152.5	150.5	147.8	146.0	132.5	97.8
Pittsburgh, Pa.....	168.2	164.9	162.6	161.1	159.6	159.0	159.2	156.5	156.0	155.4	153.8	149.4	147.4	134.7	98.4
Portland, Maine.....	150.2	(2)	(2)	153.3	(2)	(2)	152.5	(2)	(2)	149.2	(2)	(2)	141.4	128.7	97.1
Portland, Oreg.....	(2)	(2)	162.1	161.5	(2)	(2)	160.6	(2)	(2)	157.8	(2)	(2)	150.9	140.3	100.1
Richmond, Va.....	(2)	(2)	153.8	152.6	(2)	(2)	152.9	(2)	(2)	149.3	(2)	(2)	139.8	128.2	98.0
St. Louis, Mo.....	165.4	(2)	(2)	155.6	154.6	155.1	155.8	151.8	151.1	151.2	150.6	146.6	142.9	131.2	98.1
San Francisco, Calif.....	165.7	(2)	(2)	159.3	160.5	161.3	160.3	158.4	159.3	160.4	159.1	153.3	150.9	137.8	99.3
Savannah, Ga.....	(2)	(2)	165.9	165.8	165.5	166.2	166.6	162.5	162.3	162.2	161.8	155.2	153.8	140.6	99.3
Scranton, Pa.....	(2)	162.8	(2)	159.9	(2)	(2)	157.3	(2)	(2)	154.0	(2)	(2)	146.4	132.2	96.0
Seattle, Wash.....	(2)	161.8	(2)	158.3	158.5	159.1	158.2	155.4	155.7	157.2	155.3	151.9	147.9	137.0	100.3
Washington, D. C.....	(2)	159.1	(2)	156.0	154.6	154.8	154.7	151.5	152.1	152.0	150.3	147.6	145.0	133.8	98.6

¹ The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

² Through June 1947, consumers' price indexes were computed monthly for 21 cities and in March, June, September, and December for 13 additional cities; beginning July 1947 indexes were computed monthly for 10 cities and once every 3 months for 24 additional cities according to a staggered schedule.

TABLE D-3: Consumers' Price Index for Moderate-Income Families, by City and by Group Commodities¹

[1935-39=100]

City	Food		Apparel		Rent		Fuel, electricity and ice						Housefurnishings		Miscellaneous	
							Total		Gas and electricity		Other fuels and ice					
	Sept.	Aug.	Sept.	Aug.	Sept.	Aug.	Sept.	Aug.	Sept.	Aug.	Sept.	Aug.	Sept.	Aug.	Sept.	Aug.
Average.....	203.5	196.5	187.6	185.9	113.6	111.2	124.6	123.8	92.1	92.0	156.3	154.8	187.5	184.2	140.8	139.8
Atlanta, Ga.....	209.4	198.9	(1)	184.1	(2)	(2)	136.8	136.9	78.2	78.3	190.7	190.7	(1)	186.2	(1)	146.1
Baltimore, Md.....	212.8	206.9	187.0	(1)	111.5	(2)	132.8	132.7	115.5	115.5	146.8	146.7	193.8	(1)	141.2	(1)
Birmingham, Ala.....	210.9	204.8	188.0	187.8	(2)	131.6	128.8	128.8	79.6	79.6	165.6	165.6	176.7	173.5	139.1	138.2
Boston, Mass.....	195.3	187.9	180.4	178.8	110.3	(2)	133.6	133.5	106.6	106.3	148.1	148.1	177.2	173.3	136.2	136.1
Buffalo, N. Y.....	196.5	192.4	(1)	(1)	(2)	(1)	125.4	124.9	96.0	95.4	151.5	151.1	(1)	(1)	(1)	(1)
Chicago, Ill.....	211.0	203.1	189.2	186.3	127.6	(2)	118.7	118.7	83.5	83.5	155.2	155.3	178.1	176.8	139.4	138.9
Cincinnati, Ohio.....	206.7	198.3	190.0	187.2	109.2	(2)	126.0	125.6	90.8	90.8	159.5	158.8	181.6	181.2	142.3	141.4
Cleveland, Ohio.....	211.0	204.3	(1)	183.6	(2)	(2)	131.7	130.6	104.9	104.9	157.3	155.3	(1)	169.5	(1)	138.9
Denver, Colo.....	199.0	195.8	(1)	(1)	(2)	(2)	106.2	106.2	68.5	68.5	149.2	149.2	(1)	(1)	(1)	(1)
Detroit, Mich.....	197.4	195.5	186.8	184.5	(2)	(2)	134.1	134.1	84.1	84.1	172.1	172.1	199.6	193.8	153.7	152.4
Houston, Texas.....	206.4	200.8	196.5	192.2	(2)	(2)	94.4	94.3	81.9	81.9	128.0	128.0	186.7	185.5	140.9	140.4
Indianapolis, Ind.....	203.0	195.5	(1)	(1)	(2)	(2)	135.7	135.7	86.6	86.6	164.6	164.5	(1)	(1)	(1)	(1)
Jacksonville, Fla.....	209.1	205.0	180.3	(1)	116.5	(2)	133.9	133.6	94.1	94.1	168.4	167.7	172.5	(1)	152.5	(1)
Kansas City, Mo.....	193.5	183.5	(1)	(1)	(2)	(2)	117.2	115.2	66.9	66.7	163.1	159.5	(1)	(1)	(1)	(1)
Los Angeles, Cal.....	204.2	195.4	182.9	178.4	(2)	(2)	94.5	94.5	89.3	89.3	119.3	119.3	179.6	176.7	140.7	140.0
Manchester, N. H.....	201.3	196.8	(1)	(1)	(2)	(2)	137.5	137.5	94.6	94.6	158.9	158.9	(1)	(1)	(1)	(1)
Memphis, Tenn.....	220.5	213.5	204.6	(1)	(2)	120.5	122.8	122.8	77.0	77.0	148.1	148.1	168.7	(1)	133.5	(1)
Milwaukee, Wis.....	200.1	196.8	(1)	183.3	(2)	(2)	131.7	131.8	98.3	98.4	154.8	154.8	(1)	185.5	(1)	135.1
Minneapolis, Minn.....	197.2	187.4	194.7	(1)	119.6	(2)	124.1	121.6	78.4	77.0	153.9	150.8	186.9	(1)	141.8	(1)
Mobile, Ala.....	206.8	200.8	183.3	(1)	119.7	(2)	123.0	122.8	84.3	84.3	153.4	153.0	170.7	(1)	133.9	(1)
New Orleans, La.....	216.8	211.0	(1)	191.5	(2)	108.4	109.3	109.3	75.1	75.1	145.8	145.8	(1)	182.8	(1)	139.2
New York, N. Y.....	203.0	194.3	188.9	190.8	(2)	(2)	124.4	120.5	95.6	95.4	168.7	159.2	176.4	174.9	140.9	140.6
Norfolk, Va.....	210.7	203.2	(1)	178.7	(2)	(2)	130.1	130.7	93.7	94.9	158.8	158.8	(1)	182.8	(1)	143.4
Philadelphia, Pa.....	199.8	191.7	183.4	181.8	(2)	(2)	129.1	127.8	97.8	97.8	153.2	150.7	186.3	182.1	139.0	138.3
Pittsburgh, Pa.....	200.8	202.0	216.1	212.2	(2)	112.2	127.6	127.0	103.3	103.3	169.4	167.7	189.5	189.3	137.0	136.6
Portland, Maine.....	193.6	191.0	183.3	(1)	108.0	(2)	133.2	133.1	96.7	96.6	151.1	151.1	183.1	(1)	142.7	(1)
Portland, Oreg.....	209.9	205.0	(1)	(1)	(2)	(2)	121.6	121.6	91.3	91.3	158.8	158.8	(1)	(1)	(1)	(1)
Richmond, Va.....	203.8	194.3	(1)	(1)	(2)	(2)	126.2	126.6	95.6	96.7	144.8	144.8	(1)	(1)	(1)	(1)
St. Louis, Mo.....	215.9	205.0	183.2	(1)	113.1	(2)	124.5	124.5	94.1	94.1	151.5	151.5	164.7	(1)	134.7	(1)
San Francisco, Calif.....	210.4	200.4	178.8	(1)	110.4	(2)	82.7	82.7	72.7	72.7	118.2	118.2	157.1	(1)	150.3	(1)
Savannah, Ga.....	220.3	215.1	(1)	(1)	(2)	(2)	133.3	133.5	91.2	91.2	158.0	158.4	(1)	(1)	(1)	(1)
Scranton, Pa.....	206.6	199.5	(1)	191.1	(2)	103.4	134.1	133.4	91.8	91.8	159.9	158.7	(1)	178.7	(1)	134.1
Seattle, Wash.....	206.0	200.3	(1)	180.3	(2)	114.5	117.7	117.4	88.1	86.8	142.4	142.9	(1)	179.7	(1)	144.2
Washington, D. C.....	202.9	197.1	(1)	208.3	(2)	101.1	125.6	124.5	94.4	94.4	146.5	144.6	(1)	193.9	(1)	144.8

¹ Prices of apparel, housefurnishings and miscellaneous goods and services are obtained monthly in 10 cities and once every 3 months in 24 additional cities according to a staggered schedule.

² Rents are surveyed once every 3 months in 34 large cities according to a staggered schedule.

TABLE D-4: Indexes of Retail Prices of Foods,¹ by Group, for Selected Periods

[1935-39=100]

Year and month	All foods	Cereals and bakery products	Meats, poultry, and fish	Meats				Chickens	Fish	Dairy products	Eggs	Fruits and vegetables				Beverages	Fats and oils	Sugar and sweets
				Total	Beef and veal	Pork	Lamb					Total	Fresh	Canned	Dried			
1923: Average.....	124.0	105.5	101.2							129.4	136.1	169.5	173.6	124.8	175.4	131.5	126.2	175.4
1926: Average.....	137.4	115.7	117.8							127.4	141.7	210.8	226.2	122.9	152.4	170.4	145.0	120.0
1929: Average.....	132.5	107.6	127.1							131.0	143.8	169.0	173.5	124.3	171.0	164.8	127.2	114.3
1932: Average.....	86.5	82.6	79.3							84.9	82.3	103.5	105.9	91.1	91.2	112.6	71.1	89.6
1939: Average.....	95.2	94.5	96.6	96.6	101.1	88.9	99.5	93.8	101.0	95.9	91.0	94.5	95.1	92.3	93.3	95.5	87.7	100.6
August.....	93.5	93.4	95.7	95.4	99.6	88.0	98.8	94.6	99.6	93.1	90.7	92.4	92.8	91.6	90.3	94.9	84.5	95.6
1940: Average.....	96.6	96.8	95.8	94.4	102.8	81.1	99.7	94.8	110.6	101.4	93.8	96.5	97.3	92.4	100.6	92.5	82.2	96.8
1941: Average.....	105.5	97.9	107.5	106.5	110.8	100.1	106.6	102.1	124.5	112.0	112.2	103.2	104.2	97.9	106.7	101.5	94.0	106.4
December.....	113.1	102.5	111.1	109.7	114.4	103.2	108.1	100.5	138.9	120.5	138.1	110.5	111.0	106.3	118.3	114.1	108.5	114.4
1942: Average.....	123.9	105.1	126.0	122.5	123.6	120.4	124.1	122.6	163.0	125.4	136.5	130.8	132.8	121.6	136.3	122.1	119.6	126.5
1943: Average.....	138.0	107.6	133.8	124.2	124.7	119.9	136.9	146.1	206.5	134.6	161.9	168.8	178.0	130.6	158.9	124.8	126.1	127.1
1944: Average.....	136.1	108.4	129.9	117.9	118.7	112.2	134.5	151.0	207.6	133.6	153.9	168.2	177.2	129.5	164.5	124.3	123.3	126.5
1945: Average.....	139.1	109.0	131.2	118.0	118.4	112.6	136.0	154.4	217.1	133.9	164.4	177.1	188.2	130.2	168.2	124.7	124.0	126.5
August.....	140.9	109.1	131.8	118.1	118.5	112.6	136.4	157.3	217.8	133.4	171.4	183.5	196.2	130.3	168.6	124.7	124.0	126.6
1946: Average.....	159.6	125.0	161.3	150.8	150.5	148.2	163.9	174.0	236.2	165.1	168.8	182.4	190.7	140.8	190.4	139.6	152.1	143.9
June.....	145.6	122.1	134.0	120.4	121.2	114.3	139.0	162.8	219.7	147.8	147.1	183.5	196.7	127.5	172.5	125.4	126.4	136.2
September.....	174.1	137.3	188.5	181.4	180.3	182.4	187.6	192.8	237.8	186.6	193.3	176.4	181.1	148.7	185.6	162.0	151.4	141.5
October.....	180.0	138.5	190.7	178.4	174.6	182.4	187.7	225.3	249.7	202.4	214.6	176.5	178.8	154.6	198.7	166.5	147.9	167.5
November.....	187.7	140.6	203.6	197.9	191.0	207.1	205.4	188.9	265.0	198.5	201.6	184.5	182.3	167.7	251.6	167.8	244.4	170.5
December.....	185.9	141.7	197.8	190.5	187.6	193.3	198.8	189.4	267.6	200.9	201.1	185.0	180.6	172.6	268.0	176.2	207.3	175.3
1947: January.....	183.8	143.4	199.0	192.1	190.9	190.8	205.3	185.8	271.3	190.1	181.7	187.9	184.1	173.6	269.2	178.3	201.9	176.2
February.....	182.3	144.1	196.7	191.7	190.0	191.6	204.3	176.5	258.7	183.2	169.9	191.7	189.3	172.6	269.9	182.8	201.3	178.1
March.....	189.5	148.1	207.6	204.1	195.1	217.2	209.7	178.3	266.0	187.5	174.7	199.6	199.4	172.9	271.3	186.9	219.1	178.6
April.....	188.0	153.4	202.6	198.7	194.6	203.5	206.5	177.1	261.0	178.9	176.3	200.4	200.7	172.6	269.7	189.5	227.8	179.3
May.....	187.6	154.2	203.9	200.6	197.1	204.2	209.6	179.6	255.1	171.5	178.9	207.0	209.5	172.3	268.1	188.9	200.5	179.3
June.....	190.5	154.6	216.9	216.1	216.4	213.6	226.7	182.3	254.7	171.5	183.0	205.0	208.0	169.7	262.6	181.3	188.3	179.7
July.....	193.1	155.0	220.2	219.7	220.8	216.4	228.6	181.9	260.6	178.8	203.0	202.0	204.2	168.5	263.6	180.8	182.0	179.7
August.....	196.5	155.7	228.4	229.8	230.5	229.3	232.1	180.5	262.4	183.8	212.3	199.8	202.1	165.7	263.4	181.7	178.5	179.8
September.....	203.5	157.8	240.6	241.9	239.7	245.9	244.0	191.4	275.7	195.2	235.9	198.2	202.4	157.3	261.2	187.0	176.6	181.8

¹ The Bureau of Labor Statistics retail food prices are obtained monthly during the first four days of the week containing the fifteenth of the month, through voluntary reports from chain and independent retail food dealers. Articles included are selected to represent food sales to moderate-income families.

The indexes, based on the retail prices of 50 foods, are computed by the fixed-base-weighted-aggregate method, using weights representing (1) relative importance of chain and independent store sales in computing city average prices; (2) food purchases by families of wage earners and moderate-income

workers, in computing city indexes; and (3) population weights, to combine city aggregates in order to derive average prices and indexes for all cities combined.

Indexes of retail food prices in 56 large cities combined, by commodity groups, for the years 1923 through 1943 (1935-39=100), may be found in Bulletin No. 799, "Retail Prices of Food—1942 and 1943," Bureau of Labor Statistics, U. S. Department of Labor, table 3, p. 15. Mimeographed tables of the same data, by months, January 1935 to date, are available upon request.

TABLE D-5: Indexes of Retail Prices of Foods by City

[1935-39=100]

City	Sept. 1947	Aug. 1947	July 1947	June 1947	May 1947	April 1947	Mar. 1947	Feb. 1947	Jan. 1947	Dec. 1946	Nov. 1946	Oct. 1946	Sept. 1946	Aug. 1939
United States	203.5	196.5	193.1	190.5	187.6	188.0	189.5	182.3	183.8	185.9	187.7	180.0	174.1	93.5
Atlanta, Ga.	209.4	198.9	194.5	193.0	190.3	194.6	199.6	187.5	187.5	188.7	192.0	177.5	173.4	92.5
Baltimore, Md.	212.8	206.9	204.6	202.2	198.5	197.7	199.3	189.7	191.4	192.3	195.1	186.1	180.1	94.7
Birmingham, Ala.	210.9	204.8	201.8	197.3	195.8	198.8	202.9	193.5	196.0	198.4	203.5	183.0	176.6	90.7
Boston, Mass.	195.3	187.9	183.5	179.6	175.6	176.3	180.0	172.7	177.6	178.1	177.8	174.4	168.0	93.5
Bridgeport, Conn.	196.8	191.3	187.7	186.9	180.8	180.4	184.6	178.5	180.0	180.7	179.5	175.9	168.9	93.2
Buffalo, N. Y.	196.5	192.4	188.7	187.0	182.5	179.2	179.7	173.3	175.9	175.8	175.4	168.4	164.7	94.5
Butte, Mont.	195.7	193.8	188.9	185.9	184.7	183.4	184.5	175.1	174.9	180.2	180.8	175.6	170.0	94.1
Cedar Rapids, Iowa ¹	212.0	204.4	203.7	203.2	197.3	197.3	195.6	190.0	188.6	192.7	192.1	184.8	180.0	-----
Charleston, S. C.	198.0	189.8	190.6	188.3	187.0	188.0	189.2	181.5	180.5	184.2	188.2	173.0	170.4	95.1
Chicago, Ill.	211.0	203.1	198.4	193.9	190.6	188.6	190.8	183.2	184.5	187.0	189.4	183.4	176.2	92.3
Cincinnati, Ohio	206.7	198.3	194.3	191.1	187.9	188.9	191.3	182.8	182.4	184.0	187.0	171.3	169.3	90.4
Cleveland, Ohio	211.0	204.3	199.7	198.3	194.3	195.0	195.1	186.9	189.1	191.4	193.1	183.1	179.3	93.6
Columbus, Ohio	190.0	184.9	179.3	178.4	176.6	176.2	177.0	170.0	171.6	174.0	179.4	171.6	161.9	88.1
Dallas, Tex.	200.3	195.5	192.8	191.4	192.5	193.8	191.4	186.5	186.3	187.1	188.7	177.0	173.0	91.7
Denver, Colo.	199.0	195.8	191.6	191.9	191.9	192.4	191.4	185.7	190.6	192.7	171.4	170.1	92.7	-----
Detroit, Mich.	197.4	195.5	191.4	188.5	182.7	182.7	183.0	175.1	176.5	179.2	181.6	173.9	168.4	90.6
Fall River, Mass.	195.8	190.0	188.7	186.3	181.7	183.1	186.8	178.2	180.9	177.2	182.6	175.6	168.4	95.4
Houston, Tex.	206.4	200.8	198.7	196.2	197.1	199.2	196.3	190.6	192.5	189.9	190.0	174.7	173.5	97.8
Indianapolis, Ind.	203.0	195.5	191.7	188.7	185.1	187.9	187.8	179.9	180.0	184.3	187.3	175.9	172.4	90.7
Jackson, Miss. ¹	212.0	209.5	205.6	202.7	201.7	206.0	203.3	199.0	199.1	200.8	203.4	195.8	189.0	-----
Jacksonville, Fla.	209.1	205.0	201.8	199.1	196.0	199.7	198.8	198.3	190.3	194.8	199.1	182.5	180.7	95.8
Kansas City, Mo.	193.5	183.5	181.3	180.0	180.7	182.7	182.3	176.6	175.4	175.4	178.0	166.6	165.3	91.5
Knoxville, Tenn. ¹	235.9	225.9	225.8	223.0	216.8	223.4	225.2	213.9	216.4	220.4	226.5	201.5	197.8	-----
Little Rock, Ark.	201.3	195.1	193.6	189.8	188.1	193.0	190.8	182.9	182.4	184.8	186.3	172.3	168.6	94.0
Los Angeles, Calif.	204.2	195.4	193.8	193.8	196.7	195.7	195.5	194.1	194.3	195.1	198.1	182.8	176.5	94.6
Louisville, Ky.	198.2	189.7	185.4	183.4	180.0	183.6	183.9	176.6	177.7	178.6	184.9	167.4	163.7	92.1
Manchester, N. H.	201.3	196.8	192.6	190.3	185.1	184.0	186.8	177.5	183.6	186.7	185.6	176.9	170.0	94.9
Memphis, Tenn.	220.5	213.5	210.1	205.1	201.6	204.6	205.1	198.6	200.2	206.0	207.3	191.0	185.3	89.7
Milwaukee, Wis.	200.1	196.8	193.4	190.8	186.6	185.4	186.9	180.1	178.0	179.7	184.1	174.8	170.3	91.1
Minneapolis, Minn. ¹	197.2	187.4	182.5	182.6	179.0	179.6	181.3	174.6	174.0	180.2	181.7	177.6	167.9	95.0
Mobile, Ala.	206.8	200.8	198.6	196.9	197.0	201.6	199.6	188.7	189.2	191.0	193.8	182.8	176.4	95.5
Newark, N. J.	196.8	190.0	186.3	184.1	181.1	183.3	185.3	176.5	178.5	180.4	181.7	179.5	170.9	95.6
New Haven, Conn.	190.1	191.2	187.8	186.4	180.5	178.5	181.4	174.1	177.3	179.1	179.0	173.9	166.8	93.7
New Orleans, La.	216.8	211.0	207.2	203.7	201.1	204.0	204.3	199.1	199.7	202.4	207.4	196.0	190.7	97.6
New York, N. Y.	203.0	194.3	191.7	187.9	184.8	187.3	189.5	182.1	183.5	186.1	188.6	186.7	178.8	95.8
Norfolk, Va.	210.7	203.2	199.5	198.0	198.8	200.5	199.8	191.6	191.3	195.0	197.0	180.3	177.4	93.6
Omaha, Nebr.	197.9	191.1	187.2	187.4	183.8	183.2	183.2	178.3	178.2	182.9	184.1	178.2	171.0	92.3
Pearl River, Ill.	212.9	211.4	205.5	201.7	195.1	198.3	197.2	183.9	187.1	186.2	190.3	188.9	183.8	93.4
Philadelphia, Pa.	199.8	191.7	188.9	187.1	183.4	181.9	185.8	177.2	179.7	181.8	181.6	176.2	172.6	93.0
Pittsburgh, Pa.	209.8	202.0	199.9	196.9	192.4	189.9	192.0	185.6	185.2	187.7	188.5	179.3	176.9	92.5
Portland, Maine	193.6	191.0	188.4	185.3	180.2	181.4	184.8	174.3	179.8	180.5	178.9	173.5	167.0	95.9
Portland, Oreg.	209.9	205.0	202.7	199.7	200.8	201.4	198.1	191.2	192.8	196.0	194.8	183.7	184.5	96.1
Providence, R. I.	208.2	200.6	199.3	194.2	186.1	185.5	189.8	180.5	183.8	184.0	186.7	184.1	175.9	93.7
Richmond, Va.	203.8	194.3	188.4	185.8	186.3	188.3	188.8	182.1	181.5	186.5	188.2	175.9	167.4	92.2
Rochester, N. Y.	195.5	192.2	187.4	185.2	180.5	178.4	180.3	174.3	177.4	176.8	176.9	172.5	165.7	92.3
St. Louis, Mo.	215.9	205.0	200.9	196.8	193.4	195.2	198.9	188.4	187.4	189.3	191.8	183.6	174.5	93.8
St. Paul, Minn.	192.1	183.4	179.3	178.5	176.8	176.6	179.1	172.3	173.1	177.7	180.1	176.2	164.6	94.3
Salt Lake City, Utah	200.7	197.6	192.2	192.6	189.3	189.2	186.8	184.1	183.9	190.6	191.9	180.6	175.4	94.6
San Francisco, Calif.	210.4	200.4	200.4	196.9	199.9	201.7	199.5	195.4	200.6	204.6	205.2	191.4	186.5	93.8
Savannah, Ga.	220.3	215.1	207.4	209.4	208.2	208.9	213.1	203.1	203.8	205.8	209.4	192.2	190.9	96.7
Scranton, Pa.	206.6	199.5	196.1	194.9	189.2	188.0	188.9	182.6	180.9	185.2	185.6	182.5	174.0	92.1
Seattle, Wash.	206.0	200.3	197.1	193.3	193.9	196.4	194.3	187.4	189.6	195.9	194.6	186.1	175.6	94.5
Springfield, Ill.	217.1	211.0	205.9	203.5	200.2	201.7	202.3	194.5	193.4	191.6	194.9	181.7	179.8	94.1
Washington, D. C.	202.9	197.1	190.2	190.9	187.8	189.4	190.3	181.3	183.7	186.1	186.8	180.6	174.7	94.1
Wichita, Kans. ¹	213.8	201.8	199.8	197.3	195.3	198.7	196.6	190.1	193.3	195.5	198.5	189.2	186.6	-----
Winston-Salem, N. C. ¹	205.8	199.0	195.0	194.4	191.8	197.2	199.2	189.6	192.6	195.3	200.0	184.3	179.2	-----

¹ June 1940=100.

TABLE D-6: Average Retail Prices and Indexes of Selected Foods¹

Commodity	Average price September 1947	Indexes 1935-39=100													
		September 1947	August 1947	July 1947	June 1947	May 1947	April 1947	March 1947	February 1947	January 1947	December 1946	November 1946	October 1946	September 1946	August 1939
Cereals and bakery products:															
Cereals:	Cents														
Flour, wheat.....5 pounds.	48.9	180.2	187.0	187.4	189.9	191.5	187.5	171.9	164.2	161.4	158.9	157.4	155.5	149.1	82.1
Corn flakes.....11 ounces.	14.3	151.7	144.9	140.7	135.3	132.7	129.6	129.4	128.2	127.4	126.4	124.9	123.6	122.7	92.7
Corn meal.....pound.	10.5	204.5	192.4	182.1	178.1	176.6	177.5	175.4	176.3	178.1	176.0	175.3	168.7	163.1	90.7
Rice.....do.	19.9	111.5	106.8	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Rolled oats ².....20 ounces.	14.9	135.6	130.9	128.3	127.7	126.1	124.5	122.1	122.0	122.1	121.7	121.6	120.7	120.2	(*)
Bakery products:															
Bread, white.....pound.	12.6	147.9	146.8	146.7	146.5	146.1	146.4	141.7	137.0	136.3	135.2	135.5	136.0	136.6	93.2
Vanilla cookies.....do.	40.7	176.3	174.9	174.9	173.3	172.2	172.4	169.0	167.1	168.1	166.1	161.3	146.3	147.4	(*)
Meats, poultry, and fish:															
Meats:															
Beef:															
Round steak.....do.	86.7	256.4	247.6	236.7	230.9	205.2	202.3	201.7	194.6	195.4	190.3	194.2	180.8	186.7	102.7
Rib roast.....do.	69.6	241.7	231.8	220.4	216.0	197.6	195.7	196.5	192.5	194.4	192.0	194.2	175.2	181.2	97.4
Chuck roast.....do.	58.1	258.9	248.5	233.3	225.7	204.4	203.1	206.7	201.0	207.7	206.3	209.8	191.7	105.3	97.1
Hamburger ³.....do.	48.2	155.8	151.3	145.3	142.0	130.7	129.8	130.5	130.0	133.2	134.1	139.5	123.7	129.6	(*)
Veal:															
Cutlets.....do.	88.8	222.6	212.0	210.2	211.4	197.0	194.0	195.4	188.7	182.5	174.9	176.5	162.2	167.2	101.1
Pork:															
Chops.....do.	85.0	257.9	239.2	226.4	225.3	214.2	202.0	219.0	191.7	182.1	175.2	201.8	185.0	185.0	90.8
Bacon, sliced.....do.	85.6	224.7	208.4	195.5	189.9	181.2	189.9	202.1	180.8	187.7	197.3	199.6	165.7	165.7	80.9
Ham, whole.....do.	75.5	256.7	245.3	231.2	227.7	217.5	224.9	241.2	210.1	215.1	222.1	229.0	200.0	200.0	92.7
Salt pork.....do.	47.5	227.7	194.9	188.3	189.5	192.3	211.7	211.5	185.4	202.8	240.9	252.5	203.0	203.0	69.0
Lamb:															
Leg.....do.	70.3	247.9	235.8	232.3	233.0	215.0	212.9	217.8	213.7	216.3	208.7	218.9	197.3	196.8	95.7
Poultry: Roasting chickens.....do.	57.7	191.4	180.5	181.9	182.3	179.6	177.1	178.3	176.5	185.8	189.4	188.9	225.3	192.8	94.6
Fish:															
Fish (fresh, frozen).....do.	(*)	242.7	231.8	231.5	225.1	227.4	237.6	248.2	242.1	262.6	262.6	264.7	263.2	247.9	98.8
Salmon, pink.....16-ounce can.	44.9	342.2	323.1	317.5	313.8	308.4	301.1	289.2	279.5	267.9	253.7	237.6	183.9	183.3	97.4
Dairy products:															
Butter.....pound.	91.6	251.7	222.1	210.6	194.3	190.8	202.2	227.7	209.3	218.4	251.4	243.4	264.6	227.8	84.0
Cheese.....do.	57.5	221.0	215.6	215.6	211.4	213.9	234.7	233.7	234.9	242.9	251.6	266.3	249.8	230.9	92.3
Milk, fresh (delivered).....quart.	19.8	163.0	158.8	155.9	151.8	152.9	156.6	158.4	159.5	165.5	166.7	164.6	164.6	159.0	97.1
Milk, fresh (grocery).....do.	18.9	167.2	162.4	159.5	155.1	156.4	160.1	161.6	163.9	170.3	171.4	169.8	167.8	160.8	96.3
Milk, evaporated.....14½-ounce can.	12.5	175.3	175.2	175.1	176.6	179.8	186.0	193.5	193.9	195.1	195.2	193.6	185.1	177.7	93.9
Eggs: Eggs, fresh.....dozen.	81.8	235.9	212.3	203.0	183.0	178.9	176.3	174.7	169.9	181.7	201.1	201.6	214.6	193.3	90.7
Fruits and vegetables:															
Fresh fruits:															
Apples.....pound.	11.5	219.7	209.8	259.6	295.9	286.0	277.1	258.0	246.5	239.5	237.8	228.9	218.7	213.7	81.6
Bananas.....do.	15.2	252.3	245.9	247.1	250.0	251.2	248.2	246.4	244.8	243.1	240.4	226.7	182.6	182.9	97.3
Oranges, size 200.....dozen.	49.2	174.1	181.0	151.1	150.8	153.5	155.6	152.9	133.6	133.2	150.2	172.5	202.3	96.9	
Fresh vegetables:															
Beans, green.....pound.	17.1	157.4	122.2	138.3	164.3	192.7	262.5	327.2	233.1	172.1	184.0	209.1	166.8	160.5	81.7
Cabbage.....do.	6.5	170.0	234.8	168.9	204.5	241.7	167.7	172.4	172.8	164.8	140.9	133.4	134.3	141.2	103.2
Carrots.....bunch.	11.1	205.7	179.4	180.2	170.1	171.5	156.8	171.0	167.9	196.6	178.8	176.0	175.8	166.3	84.9
Lettuce.....head.	15.6	189.1	172.4	146.3	139.6	181.7	141.0	154.3	187.8	165.8	153.6	160.4	139.8	148.0	97.6
Onions.....pound.	7.8	188.9	190.2	184.7	180.1	180.3	158.0	124.8	121.7	119.4	115.6	110.0	113.0	114.0	86.8
Potatoes.....15 pounds.	72.8	202.7	214.8	252.2	244.5	219.5	207.4	189.2	178.3	177.8	171.2	169.8	169.9	177.5	91.9
Spinach.....pound.	(*)	195.5	174.4	165.7	151.2	154.7	174.2	206.8	189.8	193.9	161.0	146.4	145.6	164.6	118.4
Sweetpotatoes.....do.	10.4	195.8	234.9	226.7	223.8	200.0	198.8	200.1	203.2	202.7	196.7	183.5	178.9	186.0	115.7
Canned fruits:															
Peaches.....No. 2½ can.	31.6	163.8	168.1	168.6	168.1	166.7	167.9	167.7	167.4	167.6	167.0	165.2	160.0	156.1	92.3
Pineapple.....do.	(*)	152.8	151.7	150.0	150.7	152.5	152.1	150.9	150.4	150.8	148.4	145.6	135.4	133.2	96.0
Canned vegetables:															
Corn.....No. 2 can.	18.2	146.9	147.1	146.5	145.5	145.6	145.6	145.5	145.4	145.0	143.9	139.0	129.9	123.9	88.6
Peas.....do.	15.4	116.9	118.3	118.7	120.0	123.2	123.8	122.6	121.3	120.9	120.3	119.0	115.8	112.7	89.8
Tomatoes.....do.	17.2	191.8	213.2	220.6	224.7	230.4	230.9	232.8	233.6	236.3	233.8	222.0	194.8	184.6	92.5
Dried fruits: Prunes.....pound.	24.1	236.8	245.3	246.4	245.5	254.7	257.9	259.3	257.4	253.8	252.7	234.3	196.8	181.8	94.7
Dried vegetables: Navy beans.....do.	21.6	294.2	286.6	285.4	284.2	282.4	283.2	285.3	284.5	288.2	287.0	273.7	198.5	188.3	83.0
Beverages: Coffee.....do.	46.9	186.6	181.3	180.5	181.1	189.1	180.7	187.0	177.9	175.8	166.8	165.5	160.7	160.7	93.3
Fats and oils:															
Lard.....do.	27.0	181.3	166.8	170.3	180.8	191.8	258.4	257.7	215.7	216.6	233.8	350.3	171.8	187.6	65.2
Hydrogenated veg. shortening ⁴.....do.	39.6	190.9	203.6	212.5	219.2	236.6	247.6	222.0	214.2	213.9	216.8	130.4	127.0	93.9	
Salad dressing.....pint.	36.4	150.3	151.8	154.2	158.6	173.2	173.6	166.2	162.2	163.1	162.4	158.3	124.9	122.7	(*)
Oleomargarine.....pound.	36.1	198.0	219.1	219.9	221.5	227.3	251.2	241.5	230.8	232.8	234.1	233.7</td			

TABLE D-7: Indexes of Wholesale Prices,¹ by Group of Commodities, for Selected Periods
[1926=100]

Year and month	All commodities	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishings	Miscellaneous commodities	Raw materials	Semi-manufactured articles	Manufactured products	All commodities except farm products	All commodities except farm products and foods
1913: Average	69.8	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.1	93.1	68.8	74.9	69.4	69.0	70.0
1914: July	67.3	71.4	62.9	69.7	55.3	55.7	79.1	52.9	77.9	56.7	88.1	67.3	67.8	66.9	65.7	65.7
1918: November	136.3	150.3	128.6	131.6	142.6	114.3	143.5	101.8	178.0	99.2	142.3	138.8	162.7	130.4	131.0	129.9
1920: May	107.2	169.8	147.3	193.2	188.3	159.8	155.5	164.4	173.7	143.3	176.5	163.4	253.0	157.8	165.4	170.6
1929: Average	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	97.5	93.9	94.5	93.3	91.6
1932: Average	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	55.1	59.3	70.3	68.3	70.2
1939: Average	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	70.2	77.0	80.4	79.5	81.3
August	75.0	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	73.3	66.5	74.5	79.1	77.9	80.1
1940: Average	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	71.9	79.1	81.6	80.8	83.0
1941: Average	87.3	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	83.5	86.9	89.1	88.3	89.0
December	93.6	94.7	90.5	114.8	91.8	78.4	103.3	107.8	90.4	101.1	87.6	92.3	90.1	94.6	93.3	93.7
1942: Average	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	100.6	92.6	98.6	97.0	96.5
1943: Average	103.1	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	112.1	92.9	100.1	98.7	98.9
1944: Average	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	113.2	94.1	100.8	99.6	98.5
1945: Average	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	116.8	95.9	101.8	100.8	99.7
August	105.7	126.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	116.3	95.5	101.8	100.9	99.9
1946: Average	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	134.7	110.8	116.1	114.9	109.5
June	112.9	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	126.3	105.7	107.3	106.7	105.6
October	134.1	165.3	157.9	142.4	128.6	94.2	125.8	134.8	99.9	115.3	104.0	148.7	118.2	129.6	127.1	115.8
November	139.7	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	153.4	129.1	134.7	132.9	120.7
December	140.9	168.1	160.1	176.7	134.7	96.1	134.7	157.8	125.7	120.2	108.9	153.2	136.2	135.7	134.8	124.7
1947: January	141.5	165.0	156.2	175.1	136.6	97.7	138.0	169.7	128.1	123.3	110.3	152.1	138.8	136.7	136.1	127.6
February	144.5	170.4	162.0	173.8	138.0	97.9	137.9	174.8	129.3	124.6	110.9	154.9	142.1	139.7	138.6	128.5
March	149.5	182.6	167.6	174.6	139.6	100.7	139.9	177.5	132.2	125.8	115.3	163.2	145.9	143.3	142.1	131.1
April	147.7	177.0	162.4	166.4	139.2	103.4	140.3	178.8	133.2	127.8	115.7	160.1	144.5	141.9	141.0	131.8
May	147.1	175.7	159.8	170.8	138.9	103.3	141.4	177.0	127.1	128.8	116.1	158.6	144.9	141.7	140.6	131.9
June	147.6	177.9	161.8	173.2	138.9	103.9	142.6	174.4	120.2	129.2	112.7	160.2	145.9	141.7	140.7	131.4
July	150.6	181.4	167.1	178.4	139.5	108.9	143.8	175.7	118.8	129.8	113.0	165.3	147.0	144.0	143.6	133.4
August	153.6	181.7	172.3	182.1	140.8	112.5	148.9	179.7	117.5	129.7	112.7	167.0	149.5	147.6	147.2	136.0
September	157.4	186.4	179.3	184.8	142.0	114.1	150.7	183.3	121.3	130.6	115.9	170.8	151.9	151.6	150.8	138.2
October	158.5	187.7	177.8	190.5	143.0	115.9	151.5	185.8	126.3	132.3	117.1	175.0	154.0	151.1	151.4	139.9

¹ BLS wholesale price data, for the most part, represent prices in primary markets. They are prices charged by manufacturers or producers or are prices prevailing on organized exchanges. The weekly index is calculated from one-day-a-week prices; the monthly index from an average of these prices.

The indexes currently are computed by the fixed base aggregate method, with weights representing quantities produced for sale in 1929-31. (For a detailed description of the method of calculation see "Revised Method of Calculation of the Bureau of Labor Statistics Wholesale Price Index," in the Journal of the American Statistical Association, December 1937.)

Because of past differences in the method of computation the weekly and monthly indexes should not be compared directly. The weekly index is

useful only to indicate week-to-week changes and to provide later data on price movements. It is not revised to take account of more complete reports.

Mimeographed tables are available, upon request to the Bureau, giving monthly indexes for major groups of commodities since 1890 and for subgroups since 1913. Weekly indexes have been prepared since 1932.

² Includes current motor vehicle prices. The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in September 1946, the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sale and the Bureau carried April 1942 prices forward in each computation through September 1946.

TABLE D-8: Indexes of Wholesale Prices,¹ by Group of Commodities, by Weeks
[Indexes 1926=100. Not directly comparable with monthly data. See footnote 1, Table D-7]

Week ending	All commodities	Farm products	Foods	Hides and leather products	Textile products	Fuel & lighting materials	Metals & metal products	Building materials	Chemicals	House-furnishings	Miscellaneous commodities	Raw materials	Semi-manufactured articles	Manufactured products	All commodities except farm products	All commodities except farm products and foods
Sept. 6	154.9	182.4	174.1	183.2	140.3	114.4	150.4	180.1	118.5	131.9	117.2	168.5	150.2	150.1	148.9	137.9
Sept. 13	157.4	187.3	180.9	185.2	140.4	114.4	150.4	179.4	120.4	132.1	117.9	171.9	150.4	152.5	150.9	138.1
Sept. 20	168.1	189.8	182.3	185.5	140.7	115.0	150.3	180.9	122.2	131.9	115.1	173.6	150.9	152.7	151.1	138.0
Sept. 27	166.2	184.7	177.6	186.2	140.8	115.0	150.4	182.0	123.6	131.9	114.9	171.1	151.3	150.9	150.0	138.2
Oct. 4	157.1	187.5	178.3	180.7	141.0	115.3	150.7	182.3	123.9	131.9	115.9	172.9	151.3	151.4	150.4	138.6
Oct. 11	158.0	190.1	180.0	189.2	141.2	115.4	150.7	183.3	125.1	132.7	116.1	175.0	152.1	151.7	151.0	139.0
Oct. 18	157.9	190.9	178.5	190.4	141.2	115.7	151.1	184.0	124.7	132.7	116.5	176.0	152.4	151.1	150.8	139.3
Oct. 25	158.0	190.7	176.2	191.3	142.1	117.4	151.3	184.4	126.9	132.9	117.1	177.0	154.1	150.6	150.9	140.2
Nov. 1	157.4	187.7	173.8	195.9	142.7	118.3	151.3	185.2	127.8	133.4	117.2	175.9	154.6	150.0	150.8	140.9
Nov. 8	157.9	186.1	176.3	198.7	142.9	118.4	151.3	185.2	129.1	133.4	117.9	175.2	155.2	151.0	151.6	141.3
Nov. 15	158.5	186.9	178.0	199.6	142.9	118.7	151.3	185.3	131.3	133.5	118.1	175.8	155.4	151.7	152.3	141.5
Nov. 22	159.2	188.6	178.8	200.4	144.0	118.7	151.3	186.1	136.5	134.7	118.1	176.7	156.1	152.2	152.7	142.0
Nov. 29	159.8	190.3	178.3	203.3	144.7	119.1	151.3	187.2	138.0	134.8	118.7	177.9	157.1	152.5	153.1	142.6

¹ See footnote 1, table D-7.

TABLE D-9: Indexes of Wholesale Prices,¹ by Group and Subgroup of Commodities

[1926=100]

Group and subgroup	1947											1946			1939
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Aug.	
	158.5	157.4	153.6	150.6	147.6	147.1	147.7	149.5	144.5	141.5	140.9	139.7	134.1	75.0	
All commodities.....	158.5	157.4	153.6	150.6	147.6	147.1	147.7	149.5	144.5	141.5	140.9	139.7	134.1	75.0	
Farm products.....	189.7	186.4	181.7	181.4	177.9	175.7	177.0	182.6	170.4	165.0	168.1	169.8	165.3	61.0	
Grains.....	241.4	230.3	208.8	202.3	206.0	202.4	199.8	203.3	171.1	162.6	163.0	165.4	174.2	51.5	
Livestock and poultry.....	224.5	224.8	215.9	209.9	209.0	198.7	199.2	216.0	201.5	189.6	194.7	197.4	174.6	66.0	
Other farm products.....	153.7	150.3	152.6	157.5	155.3	153.5	156.4	155.8	150.5	149.7	152.5	153.3	150.1	60.1	
Foods.....	177.8	179.3	172.3	167.1	161.8	159.8	162.4	167.6	162.0	156.2	160.1	165.4	157.9	67.2	
Dairy products.....	163.3	170.6	164.3	152.8	140.9	138.8	148.8	157.6	161.8	164.6	180.0	182.9	185.5	67.9	
Cereal products.....	167.6	158.7	153.3	154.7	149.2	151.7	154.1	150.4	141.3	139.9	139.5	136.1	128.5	71.9	
Fruits and vegetables.....	130.8	130.1	133.0	139.7	145.2	144.3	142.2	141.5	134.2	131.6	134.5	139.5	122.5	58.5	
Meats.....	230.0	244.8	234.6	217.9	208.6	203.0	196.7	207.3	199.5	183.4	188.2	202.8	191.4	73.7	
Other foods.....	157.2	150.7	140.7	141.7	139.7	138.4	147.6	152.8	146.0	141.1	139.0	141.4	136.2	60.3	
Hides and leather products.....	190.5	184.8	182.1	178.4	173.2	170.8	166.4	174.6	173.8	175.1	176.7	172.5	142.4	92.7	
Shoes.....	178.0	175.2	174.9	173.2	172.6	172.2	172.1	171.5	171.5	170.6	169.9	162.9	145.2	100.8	
Hides and skins.....	236.9	221.1	215.6	203.5	187.1	177.7	178.1	192.2	191.4	198.5	216.5	221.0	153.0	77.2	
Leather.....	204.3	197.4	190.7	187.4	178.9	176.3	158.0	183.7	181.1	181.6	185.0	178.1	138.5	84.0	
Other leather products.....	139.6	139.5	139.1	138.8	138.3	138.3	137.7	137.7	137.1	140.3	123.6	123.5	118.6	97.1	
Textile products.....	143.0	142.0	140.8	139.5	138.9	138.9	139.2	139.6	138.0	136.6	134.7	131.6	128.6	67.8	
Clothing.....	134.7	134.4	134.3	134.3	133.9	133.9	133.0	133.0	132.7	132.4	129.8	127.9	125.5	81.8	
Cotton goods.....	204.6	202.3	199.2	195.9	193.8	193.0	194.7	196.6	193.7	184.6	181.6	174.7	172.9	65.5	
Hosiery and underwear.....	100.0	99.9	99.9	100.4	100.8	100.8	100.8	100.8	100.0	99.3	96.9	89.3	88.8	61.5	
Rayon.....	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	33.8	33.8	32.0	30.2	28.5	
Silk.....	71.2	68.3	68.2	68.2	68.4	67.9	69.4	73.2	80.2	101.2	103.2	115.0	125.7	44.3	
Woolen and worsted goods.....	134.2	133.8	133.3	130.1	129.2	129.2	129.1	127.5	121.9	120.8	119.0	117.7	116.6	75.5	
Other textile products.....	176.3	175.1	171.8	171.2	173.8	176.1	175.8	175.1	170.1	169.9	168.1	161.3	150.6	63.7	
Fuel and lighting materials.....	115.9	114.1	112.5	108.9	103.9	103.3	103.4	100.7	97.9	97.7	96.1	94.5	94.2	72.6	
Anthracite.....	122.8	122.5	121.7	114.2	112.7	112.2	113.9	114.9	114.8	114.7	113.7	113.5	113.5	72.1	
Bituminous coal.....	172.2	170.1	169.8	163.0	145.6	145.1	145.0	143.6	143.3	142.6	138.9	137.4	137.2	96.0	
Coke.....	182.0	181.9	170.2	160.7	157.3	155.7	155.4	155.2	155.1	152.5	147.5	147.5	147.5	104.2	
Electricity.....	(*)	(*)	64.5	65.0	64.4	64.1	64.3	64.3	65.7	64.9	65.8	65.2	64.1	75.8	
Gas.....	(*)	89.0	86.0	85.5	85.8	85.0	84.9	84.9	84.3	80.8	83.1	84.4	80.8	86.7	
Petroleum and products.....	96.5	93.7	92.2	89.8	87.5	86.8	86.3	81.7	76.6	76.5	75.8	73.4	73.1	51.7	
Metals and metal products.....	151.1	150.7	148.9	143.8	142.6	141.4	140.3	139.9	137.0	138.0	134.7	130.2	125.8	93.2	
Agricultural implements.....	120.7	119.6	118.6	118.4	118.2	117.8	116.6	116.8	117.6	117.5	117.1	112.5	108.7	93.5	
Farm machinery.....	121.8	120.8	119.7	119.7	119.7	119.2	118.0	118.2	119.0	119.0	118.6	113.8	109.9	94.7	
Iron and steel.....	140.8	140.4	130.4	133.3	131.4	128.6	127.6	126.9	125.0	123.9	117.4	114.0	113.7	95.1	
Motor vehicles.....	159.9	159.4	156.3	150.3	149.4	149.3	148.8	149.2	149.3	151.3	151.0	148.2	143.6	92.5	
Nonferrous metals.....	142.0	142.0	141.8	141.8	142.9	143.9	141.0	139.0	131.3	130.5	129.3	118.4	101.8	74.6	
Plumbing and heating.....	136.0	135.9	128.6	123.4	119.1	120.0	118.2	117.9	117.1	117.0	114.9	107.2	107.2	79.3	
Building materials.....	185.8	183.3	179.7	175.7	174.4	177.0	178.8	177.5	174.8	169.7	157.8	145.5	134.8	89.6	
Brick and tile.....	145.6	145.4	144.3	143.3	134.7	134.5	134.5	132.4	132.3	132.2	130.0	129.1	127.8	90.5	
Cement.....	120.1	119.0	116.9	114.9	114.3	114.0	114.0	112.3	109.9	108.3	106.9	107.0	106.5	91.3	
Lumber.....	290.0	285.7	276.7	269.0	266.1	269.4	273.5	269.3	263.6	249.9	227.2	192.1	178.9	90.1	
Paint and paint materials.....	161.4	157.9	154.9	156.1	159.6	160.2	175.5	176.1	173.9	171.2	155.4	151.3	119.2	82.1	
Plumbing and heating.....	136.0	135.9	128.6	123.4	119.1	120.0	118.2	117.9	117.1	117.0	114.9	107.2	107.2	79.3	
Structural steel.....	143.0	143.0	143.0	130.8	127.7	127.7	127.7	127.7	127.7	127.7	120.1	120.1	120.1	107.3	
Other building materials.....	152.5	150.6	150.1	145.1	144.8	143.7	143.5	141.5	131.8	125.3	122.5	122.5	122.5	89.5	
Chemicals and allied products.....	126.3	121.3	117.5	118.8	120.2	127.1	133.2	132.2	129.3	128.1	125.7	118.9	99.9	74.2	
Chemicals.....	122.1	118.2	117.5	119.9	118.7	118.7	119.5	114.5	113.8	112.7	111.8	106.9	98.8	83.8	
Drug and pharmaceutical materials.....	137.5	136.6	136.6	137.4	156.1	173.6	181.0	182.7	182.5	181.7	181.2	152.8	111.5	77.1	
Fertilizer materials.....	111.3	109.8	105.5	103.5	101.8	102.5	101.2	101.8	99.2	99.9	95.1	96.3	91.9	65.5	
Mixed fertilizers.....	97.7	97.2	97.3	97.2	96.8	96.7	96.7	96.3	96.3	95.5	93.6	91.1	90.5	73.1	
Oils and fats.....	175.3	155.6	133.3	134.8	139.2	179.9	220.1	231.5	214.3	210.6	203.0	191.0	111.1	40.6	
Housefurnishing goods.....	132.3	130.6	129.7	129.8	129.2	128.8	127.8	125.8	124.6	123.3	120.2	118.2	115.3	85.6	
Furnishings.....	139.3	138.5	138.1	138.1	137.2	136.9	135.2	131.4	129.6	128.4	126.3	124.4	121.3	90.0	
Furniture.....	124.9	122.4	120.9	121.1	120.9	120.3	120.0	120.0	119.5	118.2	113.9	111.8	109.2	81.1	
Miscellaneous.....	117.1	115.9	112.7	113.0	112.7	116.1	115.7	115.3	110.9	110.3	108.9	106.5	104.0	73.3	
Automobile tires and tubes.....	60.8	60.8	60.8	60.8	62.5	66.7	66.7	66.7	66.7	66.6	67.9	67.3	67.3	60.6	
Cattle feed.....	280.5	287.2													

E: Work Stoppages

TABLE E-1: Work Stoppages Resulting From Labor-Management Disputes¹

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average).....	2,862		1,130,000		16,900,000	0.27
1945.....	4,750		3,470,000		38,000,000	.47
1946.....	4,985		4,600,000		116,000,000	1.43
1946: October.....	516	848	307,000	467,000	6,220,000	.88
November.....	344	677	435,000	707,000	4,980,000	.77
December.....	168	402	76,400	500,000	3,130,000	.46
1947: January ²	320	475	105,000	165,000	1,375,000	.2
February ²	290	475	75,000	150,000	1,240,000	.2
March ²	330	525	100,000	165,000	1,100,000	.2
April ²	460	625	600,000	650,000	7,750,000	1.1
May ²	425	650	200,000	625,000	5,700,000	.8
June ²	350	600	475,000	625,000	3,750,000	.6
July ²	300	500	500,000	650,000	4,200,000	.5
August ²	325	500	120,000	250,000	2,500,000	.4
September ²	200	400	75,000	165,000	2,000,000	.3
October ²	175	350	60,000	145,000	1,850,000	.2

¹ All known work stoppages, arising out of labor-management disputes, involving six or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "man-days idle" and "workers involved" cover all workers made idle in establishments directly involved in a stoppage. They do not measure the indirect or

secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

² Preliminary estimates. Figures for early months of 1947 revised but not final.

F: Building and Construction

TABLE F-1: Estimated Construction Expenditures, by Type of Construction¹

Type of construction	Estimated expenditures (in millions)													1946	1939
	1947														
	Nov. ²	Oct. ²	Sept. ²	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Total	Total
Total construction.....	\$1,456	\$1,529	\$1,484	\$1,442	\$1,349	\$1,246	\$1,117	\$1,028	\$954	\$913	\$966	\$1,054	\$1,151	\$11,694	\$6,836
New construction ⁴	1,253	1,317	1,279	1,242	1,161	1,070	955	876	826	795	839	905	987	9,890	6,062
Private construction.....	963	977	962	937	876	811	722	662	648	634	666	711	745	7,739	3,619
Residential building (nonfarm).....	525	515	490	461	429	387	342	306	285	284	300	320	335	3,183	2,114
Nonresidential building (nonfarm) ⁵	292	285	275	266	259	254	245	240	247	260	275	296	308	3,350	785
Industrial.....	135	137	138	139	139	140	141	142	146	152	159	166	171	1,689	254
Commercial.....	98	91	83	75	73	70	61	55	57	62	69	80	86	1,114	287
All other.....	59	57	54	52	47	44	43	43	44	46	47	50	51	547	244
Farm construction.....	25	50	65	75	60	50	40	30	20	10	10	20	20	350	226
Public utilities.....	121	127	132	135	128	120	95	86	96	80	81	85	82	856	494
Public construction.....	290	340	317	305	285	259	233	214	178	161	173	194	242	2,151	2,443
Residential building.....	7	10	8	9	9	6	9	16	24	33	39	51	68	387	65
Nonresidential building (except military and naval facilities).....	51	52	49	45	44	42	41	41	36	32	33	23	27	319	835
Industrial facilities ⁶	1	1	1	1	2	2	3	4	3	3	5	5	7	84	23
All other.....	50	51	48	44	42	40	38	37	33	29	28	18	20	235	812
Military and naval facilities.....	20	23	21	22	19	15	15	15	12	12	12	16	17	188	125
Highways.....	130	160	147	139	128	117	95	75	48	34	37	57	76	706	835
Other public.....	82	96	92	90	85	79	73	67	58	50	52	47	54	551	583
Federal ⁷	38	47	44	43	40	36	30	25	22	20	21	23	27	270	330
State and local ⁸	44	48	48	47	45	43	43	42	36	30	31	24	27	281	253
Minor building repairs.....	203	212	205	200	188	176	162	152	128	118	127	149	164	1,804	774
Residential (nonfarm) ⁹	70	70	70	69	65	60	54	47	36	33	32	35	43	521	290
Nonresidential (nonfarm) ⁹	65	70	70	68	65	62	58	55	52	50	55	60	63	753	180
Farm construction ¹⁰	68	72	65	63	58	54	50	50	40	35	40	54	58	530	304

¹ Estimated construction expenditures represent the monetary value of the volume of work accomplished during the given period of time. These figures should be differentiated from data on value of construction reported in the tables on urban building and Federal construction.

² Preliminary.

³ Revised.

⁴ Joint estimates by the Bureau of Labor Statistics, U. S. Department of Labor, and the Office of Domestic Commerce, U. S. Department of Commerce. New construction includes expenditures for major additions and alterations.

⁵ Excludes nonresidential building by privately owned public utilities.

⁶ Excludes expenditures to construct facilities used in atomic energy projects.

⁷ Mainly river, harbor, flood control, reclamation, and power projects.

⁸ Includes water supply, sewage disposal, and miscellaneous public service enterprises.

⁹ Covers privately financed structural repairs of the type for which building permits are generally required.

¹⁰ Covers maintenance and repairs.

TABLE F-2: Value of Contracts Awarded and Force-Account Work Started on Federally Financed Construction, by Type of Project¹

Period	All types of projects	Airports ²	Valuation (in thousands)								
			Buildings ³		Conservation and development			Electrification ⁴	Highways, streets, and roads	Water and sewage	All other types ⁵
			Residential	Nonresidential	Reclamation	River, harbor and flood control					
1930	\$1,533,439	(*)	7,633,465	\$497,929	\$73,797	\$115,913	\$14,878	\$511,685	\$154,807	\$100,965	
1939	1,586,604	\$4,753	231,071	438,151	115,612	109,811	29,775	355,701	118,131	183,599	
1942	7,775,497	579,176	549,472	5,580,917	150,708	67,087	32,538	347,988	152,343	315,268	
1946	1,450,252	14,859	435,453	114,203	169,253	131,152	4,566	535,784	13,231	31,761	
1946: October	94,873	261	1,147	2,769	32,909	2,027	80	55,480	169	31	
November	45,833	2,012	294	8,702	5,263	635	233	28,593	0	101	
December	54,100	122	294	7,898	572	1,908	3,290	39,966	0	50	
1947: January	86,642	2,159	388	35,903	2,447	10,231	475	25,561	20	458	
February	58,508	237	2,595	10,442	5,188	4,220	589	34,520	172	536	
March	92,913	340	5,197	8,942	13,803	21,082	414	42,388	46	701	
April	122,646	387	7,035	16,512	7,892	16,912	312	72,218	753	625	
May	120,606	1,348	5,968	14,486	4,443	27,148	182	64,242	2,217	602	
June	176,092	5,466	21,248	35,019	11,779	38,023	892	57,177	2,688	1,990	
July	70,396	1,224	409	5,938	1,763	2,025	283	57,845	40	869	
August	119,793	1,324	4,347	28,443	16,186	3,226	309	65,742	24	192	
September ⁶	88,142	163	409	4,572	1,699	20,497	52	59,827	831	92	
October ⁶	95,058	94	570	3,269	1,089	15,668	798	71,545	140	1,885	

¹ Covers projects financed wholly or partially from Federal funds. Excludes off-continent construction beginning with January 1943. Projects classified as secret by the military are excluded.

² Excludes hangars and other buildings, which are included under building construction.

³ Includes additions, alterations, and repairs.

⁴ Excludes loans granted by the Rural Electrification Administration.

⁵ Covers forestry, railroad construction, and other types of heavy engineering projects, not elsewhere classified.

⁶ Included in "All other types."

⁷ Includes nonresidential construction at the site of three Resettlement Administration projects for which a break-down of residential and nonresidential costs is not available.

⁸ Revised.

⁹ Preliminary.

TABLE F-3: Permit Valuation¹ of Urban Building Construction Scheduled to be Started, by Class of Construction, and by Source of Funds² (Federal and Non-Federal)

Period	Valuation (in thousands)											
	All building construction			New residential building ³			New nonresidential building			Additions, alterations, and repairs		
	Total	Non-Federal	Federal	Total	Non-Federal	Federal	Total	Non-Federal	Federal	Total	Non-Federal	Federal
1942	\$2,707,573	\$1,066,958	\$1,640,615	\$918,413	\$315,804	\$1,510,688	\$222,998	\$1,287,600	\$278,472	\$241,351	\$37,121	
1946	4,728,081	4,290,600	437,481	2,501,160	\$2,147,254	\$54,788	299,118	1,457,142	42,071	769,779	728,275	41,504
1946: September	347,022	316,304	30,718	193,498	173,775	0	19,723	94,671	89,707	4,964	58,853	52,822
October	337,351	324,509	12,842	193,991	184,198	8,441	1,352	85,250	83,986	1,273	58,101	56,325
November	272,745	263,253	9,402	149,863	149,581	0	282	81,507	73,091	8,416	41,375	40,581
December	229,809	221,059	8,750	109,101	109,101	0	0	78,514	70,792	7,722	42,194	41,166
1947: January	265,583	249,886	15,697	132,444	125,180	7,264	0	83,506	76,522	6,984	49,633	48,184
February	277,060	269,286	7,774	139,793	139,793	0	0	86,376	79,562	6,814	50,891	49,931
March	382,344	372,565	9,779	207,967	206,381	1,586	0	109,887	102,830	7,057	64,490	63,354
April	440,289	429,276	11,013	241,815	239,866	0	1,949	123,558	115,920	7,638	74,916	73,490
May	427,406	418,614	8,702	227,947	227,947	0	0	126,734	120,201	6,533	72,725	70,466
June	486,854	460,321	26,533	261,072	254,555	3,857	2,660	140,168	129,585	10,583	85,614	76,181
July	535,647	529,577	6,070	272,997	272,669	0	328	168,799	166,618	2,181	93,851	90,290
August ⁶	566,058	537,554	28,504	301,603	298,875	1,728	0	180,121	155,059	25,062	84,334	82,620
September ⁶	559,118	533,344	5,774	309,120	307,173	1,947	0	160,199	157,294	2,905	80,709	88,877
First 9 months of 1946 ⁴	3,888,175	3,481,778	406,397	2,048,207	1,704,375	46,348	297,484	1,211,862	1,187,202	24,600	628,106	500,201
First 9 months of 1947 ⁵	3,940,360	3,820,424	119,936	2,094,758	2,073,439	16,382	4,937	1,179,348	1,103,591	75,757	666,254	643,394

¹ Includes value of Federal construction contracts awarded and estimates for building to be started in urban places which do not issue permits.

² Estimates of non-Federal (private and State and local government) urban building construction are based upon building permit reports received from places containing about 85% of the urban population of the United States; estimates of federally financed projects are compiled from notifications of construction contracts awarded which are obtained from other Federal agencies. Urban, as defined by the Bureau of the Census, covers

all incorporated places of 2,500 population or more in 1940 and, by special rule, a small number of unincorporated civil divisions.

³ Includes valuation of hotels, dormitories, tourist cabins, and other non-housekeeping residential buildings in addition to housekeeping units shown in table F-4.

⁴ Revised.

⁵ Preliminary.

TABLE F-4: Number and Valuation¹ of New Family Dwelling Units Scheduled To Be Started in Urban Areas,² by Type of Structure and by Source of Funds (Private and Public)

Period	Number of new family-dwelling units							Valuation (in thousands)								
	All dwellings	Publicly financed	Privately financed				All dwellings	Publicly financed	Privately financed				Total	1-family	2-family ³	Multifamily ⁴
			Total	1-family	2-family ³	Multifamily ⁴			Total	1-family	2-family ³	Multifamily ⁴				
1942	280,838	95,946	184,892	138,908	15,747	30,237	\$895,503	\$266,933	\$598,570	\$478,658	\$42,629	\$77,283				
1946	528,755	98,737	430,018	358,126	24,271	47,621	2,445,773	331,887	2,113,886	1,830,305	102,754	180,737				
1946: September	42,563	7,519	35,044	29,335	2,050	3,690	191,455	18,777	172,678	150,795	8,900	12,923				
October	37,401	1,334	36,067	29,576	1,869	4,562	193,385	9,792	183,593	156,482	8,200	18,821				
November	28,661	122	28,539	23,747	1,594	3,198	149,579	282	149,297	126,948	7,397	14,952				
December	21,369	0	21,369	17,469	977	2,923	108,284	0	108,284	92,385	4,447	11,452				
1947: January	25,383	1,084	24,299	20,537	1,496	2,206	131,771	7,264	124,507	108,433	6,342	9,732				
February	27,074	0	27,074	22,156	1,615	3,303	138,443	0	138,443	118,613	6,375	13,455				
March	37,649	491	37,158	30,615	2,448	4,095	206,511	1,586	204,925	176,084	10,763	18,078				
April	42,862	328	42,534	35,214	3,142	4,178	240,390	1,949	238,441	202,847	13,478	22,118				
May	41,138	0	41,138	33,670	3,085	4,383	224,951	0	224,951	189,244	14,068	21,629				
June	46,999	1,005	45,994	34,627	3,478	7,889	259,350	6,517	252,833	198,400	13,984	40,449				
July	47,183	36	47,117	36,943	3,053	7,121	271,188	315	270,873	221,040	14,269	35,564				
August ⁵	51,304	192	51,112	39,226	3,519	8,367	298,637	1,728	296,909	238,135	16,416	42,358				
September ⁶	52,179	275	51,904	40,865	2,988	8,051	305,041	1,947	303,094	251,224	14,750	37,126				
First 9 months of 1946 ⁷	441,324	97,281	344,043	287,334	19,801	36,908	1,994,525	321,812	1,672,713	1,454,580	82,620	135,513				
First 9 months of 1947 ⁸	371,741	3,411	368,330	293,853	24,824	49,653	2,076,282	21,306	2,054,976	1,704,030	110,445	240,501				

¹ Includes value of Federal construction contracts awarded and estimates of dwelling units to be started in urban places which do not issue permits.

⁴ Includes units in multifamily structures with stores.

² See footnote 2, table F-3.

⁵ Revised.

³ Includes units in 1- and 2-family structures with stores.

⁶ Preliminary.

TABLE F-5: Permit Valuation¹ of New Nonresidential Building Scheduled To Be Started in Urban Areas,² by General Type of Building and by Source of Funds (Total and Non-Federal)

Period	Valuation (in thousands)													
	New nonresidential building		Industrial building ³		Commercial building ⁴		Community building ⁵		Government building ⁶		Public works and utility building ⁷		All other building ⁸	
	Total (inincluding Federal)	Non-Federal	Total (inincluding Federal)	Non-Federal	Total (inincluding Federal)	Non-Federal	Total (inincluding Federal)	Non-Federal	Total (inincluding Federal)	Non-Federal	Total (inincluding Federal)	Non-Federal	Total (inincluding Federal)	Non-Federal
1946	\$1,457,142	\$1,415,071	\$396,923	\$395,250	\$660,498	\$660,498	\$190,098	\$167,327	\$12,042	\$3,624	\$101,241	\$92,032	\$87,340	\$87,340
1946: September	94,671	89,707	33,262	33,110	30,939	30,939	15,276	10,464	402	492	6,447	6,447	8,255	8,255
October	85,250	83,986	21,123	21,123	35,264	35,264	14,049	12,793	170	153	6,422	6,422	8,231	8,231
November	81,307	73,091	20,944	20,944	23,267	23,267	16,168	7,752	321	321	14,585	14,585	6,222	6,222
December	78,514	70,792	22,665	22,665	24,328	24,328	15,643	12,336	157	157	6,968	6,968	4,338	4,338
1947: January	83,506	76,522	22,889	22,889	31,439	31,439	16,323	9,339	257	257	7,719	7,719	4,879	4,879
February	86,376	79,562	20,080	20,080	30,785	30,785	17,727	11,033	659	539	10,136	10,136	6,989	6,989
March	106,887	102,830	26,813	26,813	38,780	38,780	26,310	19,322	388	319	10,665	10,665	6,931	6,931
April	123,558	115,920	22,907	22,907	45,458	45,458	24,461	21,598	7,399	2,624	13,883	13,883	9,450	9,450
May	126,734	120,201	25,366	25,366	47,863	47,863	28,155	24,015	3,246	853	12,157	12,157	9,947	9,947
June	140,168	129,585	28,119	28,119	54,882	54,882	32,233	28,000	7,545	1,195	8,295	8,295	9,004	9,004
July	168,799	166,618	25,763	25,763	72,685	72,685	37,483	36,637	2,770	1,435	18,228	18,228	11,870	11,870
August	180,121	155,059	40,407	40,407	69,108	69,108	48,422	25,679	3,399	1,080	7,452	7,452	11,333	11,333
September ⁹	160,199	157,294	26,829	26,829	82,029	82,029	23,100	22,205	3,637	1,627	12,889	12,889	11,715	11,715
First 9 months of 1946	1,211,862	1,187,202	332,191	330,518	586,639	586,639	144,237	134,446	11,394	2,993	68,852	64,057	68,549	68,549
First 9 months of 1947 ¹⁰	1,179,348	1,103,501	239,173	239,173	473,029	473,029	254,214	197,828	29,300	9,929	101,424	101,424	82,208	82,208

¹ Includes value of Federal construction contracts awarded and estimates for building to be started in urban places which do not issue permits.

libraries, etc.

² See table F-3, footnote 2.

³ Includes Federal, State, county, and municipal buildings, such as post offices, city halls, fire and police stations, army barracks, and naval stations, etc.

⁴ Includes factories, navy yards, army ordnance plants, bakeries, ice plants, industrial warehouses, and other buildings at the site of these and similar production plants.

⁵ Includes railroad, bus, and airport buildings, roundhouses, radio stations, gas and electric plants, public comfort stations, etc.

⁶ Includes amusement and recreation buildings, stores and other mercantile buildings, public garages, gasoline and service stations, etc.

⁷ Includes private garages, sheds, stables and barns, and other buildings not elsewhere classified.

⁸ Includes churches, hospitals, and other institutional buildings, schools,

⁹ Preliminary.

TABLE F-6: Estimated Number of New Dwelling Units Started and Completed in Nonfarm Areas¹

Period	Number of new family-dwelling units started					Number of new family-dwelling units completed				
	Total	Permanent ²			Temporary ³	Total	Permanent ²			Temporary ⁴
		Total	Private	Public			Total	Private	Public	
1946: Total	776,200	670,500	662,500	8,000	105,700	476,400	437,800	437,800	(*)	38,600
January	42,500	37,500	36,900	600	5,000	-	15,900	15,900	0	-
February	49,300	42,400	42,400	0	6,900	-	17,300	17,300	0	-
March	70,400	62,000	62,000	0	8,400	-	18,700	18,700	0	-
April	79,900	67,000	67,000	0	12,900	-	21,000	21,000	0	-
May	83,400	67,100	67,100	0	16,300	-	25,100	25,100	0	-
June	79,800	64,100	62,800	1,300	15,700	-	30,600	30,600	0	-
July	78,500	62,600	61,300	1,300	15,900	-	36,700	36,700	0	-
August	81,300	65,400	61,900	3,500	15,900	-	43,400	43,400	0	-
September	65,800	57,600	57,600	0	8,200	-	49,700	49,700	0	-
October	58,200	57,800	56,500	1,300	400	-	55,500	55,500	0	-
November	47,800	47,700	47,700	0	100	-	61,200	61,200	0	-
December	39,300	39,300	39,300	0	(*)	-	62,700	62,700	(*)	-
1947: January	40,100	40,100	39,000	1,100	0	78,600	62,600	62,600	0	16,000
February	44,100	44,100	44,100	0	0	75,800	60,300	60,300	(*)	15,500
March	59,000	58,400	58,400	0	600	72,700	57,700	57,700	0	15,000
April	60,500	68,700	68,700	0	800	65,900	59,500	59,400	100	6,400
May	72,700	72,500	72,500	0	200	62,500	59,900	59,900	0	2,600
June	79,400	77,200	77,000	200	2,200	66,800	63,000	62,800	200	3,800
July	80,100	80,100	80,000	0	(*)	68,500	65,700	65,400	300	2,800
August	86,100	85,700	85,500	200	400	71,900	70,400	70,300	100	1,500
September	92,000	92,000	91,700	300	0	78,100	77,200	77,000	200	900
October	-	-	92,000	-	-	-	-	81,800	-	-

¹ Estimates of equivalent living accommodations provided by the conversion of family units, dormitories, and trailers previously shown in this table have been discontinued because of the paucity of data.

² Covers both conventional and prefabricated units.

³ Starts data for 1946, cover only those family dwelling units in the Federal temporary re-use housing program which were provided by dismantling temporary war structures and their re-erection at new sites. Starts data for

1947 cover all new temporary housing projects whether financed by Federal or by State and local funds.

⁴ Covers only those family dwelling units in the Federal temporary re-use housing program which were provided by dismantling temporary war structures and their re-erection at new sites.

* Monthly data not available.

† Less than 50 units.

TABLE F-7: Estimated Number and Average Construction Cost of Privately Financed Dwelling Units Started in 30 Leading Industrial Areas¹

Industrial area	Number of dwelling units started												
	1947							1946					
	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.
Atlanta	800	885	630	595	487	415	345	365	435	460	590	655	565
Boston	795	1,070	765	875	587	830	530	245	325	450	495	355	385
Buffalo	980	530	700	425	345	240	205	155	170	170	280	200	345
Chicago	2,460	2,345	2,010	1,703	1,342	1,190	700	230	1,105	1,485	1,410	1,225	2,005
Cleveland	825	810	720	615	493	610	400	300	410	515	770	735	670
Columbus	265	265	340	248	250	275	185	180	140	205	370	225	285
Dallas	905	780	780	748	842	540	505	335	245	425	675	375	195
Denver	415	500	280	312	354	270	270	275	380	330	565	525	635
Detroit	2,730	2,180	1,845	1,528	1,615	1,505	810	615	780	1,195	1,195	1,355	1,500
Fort Worth	445	365	465	474	457	400	455	210	180	250	330	340	395
Hartford	300	400	260	272	258	160	65	65	110	110	95	120	140
Indianapolis	485	440	405	299	260	230	130	160	150	165	270	260	405
Knoxville	225	205	240	201	166	125	95	95	120	155	315	210	220
Los Angeles	6,135	4,845	4,500	4,643	5,096	5,040	5,675	3,855	4,630	4,095	3,995	4,980	5,135
Memphis	660	475	460	331	508	380	415	225	220	420	355	270	365
Milwaukee	495	475	545	517	387	120	105	195	220	360	425	305	475
Minneapolis-St. Paul	755	710	725	587	418	195	210	210	410	495	580	585	715
New York-Newark-Jersey City ⁴	3,505	2,100	3,035	2,454	1,900	2,495	1,810	2,865	2,030	3,270	3,640	4,305	4,545
Philadelphia-Camden	1,315	1,570	1,515	1,481	896	805	375	350	385	855	775	730	1,005
Pittsburgh	1,235	1,040	1,200	775	849	455	185	280	370	380	390	720	530
Sacramento	395	300	285	266	330	315	325	350	175	280	265	365	305
San Francisco	1,570	1,575	1,240	1,266	1,664	1,700	1,505	1,570	945	1,365	985	1,610	1,520
Seattle-Tacoma	(*)	(*)	(*)	(*)	(*)	670	410	375	430	360	700	850	900
Springfield-Holyoke	170	205	200	185	135	65	40	30	85	85	70	100	120
St. Louis	775	780	665	692	671	495	405	310	325	330	490	660	630
Syracuse	165	310	145	140	124	50	10	5	15	110	95	125	135
Toledo	140	105	130	104	95	105	60	40	45	65	110	135	115
Washington, D. C.	1,700	2,420	2,220	1,589	1,206	1,230	966	719	705	870	1,230	800	1,020
Worcester	275	225	195	224	208	120	30	15	55	90	95	155	150
Youngstown ⁵	(*)	(*)	(*)	(*)	(*)	(*)	60	70	55	100	65	170	100
* * *													
	Average construction cost per dwelling unit started ²												
	7,500	\$6,400	\$6,300	\$5,900	\$5,600	\$5,400	\$5,900	\$5,500	\$5,100	\$5,000	\$5,100	\$5,100	\$5,200
	7,900	8,000	8,100	7,100	7,200	6,800	6,000	7,700	7,400	7,300	6,700	8,500	7,400
	7,700	7,200	7,000	7,700	8,600	8,000	7,900	6,900	6,900	6,800	7,300	7,200	7,200
	8,500	8,500	8,800	8,800	8,500	8,700	8,700	8,500	7,700	7,800	8,700	8,100	7,700
	9,200	9,500	9,500	9,600	9,300	9,200	8,800	8,800	9,100	9,100	8,400	8,400	8,300
	8,600	8,200	7,500	7,700	8,000	7,900	8,600	7,700	7,900	7,700	7,300	7,000	6,300
	6,200	6,100	5,900	5,800	5,600	5,700	5,600	5,900	6,400	6,500	6,100	6,000	6,800
	6,800	6,100	5,900	4,900	5,700	5,700	5,600	5,400	5,700	5,800	5,700	5,700	5,700
	8,100	8,300	8,200	8,000	8,600	8,500	9,400	9,800	7,300	7,700	8,400	7,600	6,900
	5,500	4,600	4,600	4,800	4,800	4,500	4,300	4,000	5,900	4,200	3,200	3,000	3,200
	8,100	8,200	7,600	7,600	7,500	7,600	7,600	9,000	8,400	7,400	7,200	7,400	7,000
	5,100	5,900	6,200	6,000	6,200	5,600	6,700	5,900	5,300	5,400	4,900	5,300	5,600
	4,200	4,900	4,300	4,600	4,600	4,300	4,900	4,800	4,700	4,300	4,700	4,400	3,900
	7,200	6,800	6,900	6,600	6,800	6,700	6,700	6,600	6,700	6,700	6,800	6,600	6,900
	4,100	4,600	4,400	4,300	4,300	4,200	4,900	4,300	4,500	4,900	4,500	4,400	4,600
	8,700	8,600	8,000	7,500	7,700	8,600	7,800	7,300	8,100	7,100	7,800	7,500	6,100
	8,100	7,600	7,800	8,000	8,200	8,200	7,600	9,000	7,900	8,000	7,600	7,200	7,200
	8,500	8,600	7,600	7,900	9,100	7,400	7,400	7,000	8,100	7,400	7,600	7,700	7,000
	6,600	6,900	7,000	7,000	6,900	6,700	6,700	7,100	7,300	6,700	6,700	6,800	6,800
	7,500	7,500	7,600	7,300	6,500	7,300	7,100	7,300	7,400	7,600	7,100	6,300	5,900
	5,100	4,300	4,900	5,700	5,400	3,900	4,000	4,800	4,400	4,700	4,700	5,100	5,400
	7,500	7,500	7,600	7,600	7,500	8,100	8,000	7,900	7,700	7,600	7,400	6,600	6,700
	(*)	(*)	(*)	(*)	(*)	6,100	6,600	5,200	6,300	6,900	5,400	5,800	6,000
	7,000	6,400	6,400	6,600	7,000	6,700	6,900	6,600	7,100	6,400	6,300	6,500	5,000
	6,100	6,600	6,700	6,900	6,800	6,900	6,600	6,600	6,800	8,900	6,700	5,400	6,000
	9,100	7,700	7,500	7,900	8,400	8,300	7,900	9,700	9,200	9,000	6,900	5,900	6,800
	7,400	8,200	8,200	6,600	8,100	7,900	8,200	7,300	8,000	7,100	6,700	6,900	7,500
	9,000	8,200	7,900	8,200	8,500	8,300	8,100	7,600	7,500	7,700	6,600	6,600	7,900
	5,600	6,000	5,800	5,500	5,800	6,600	5,700	7,900	5,800	6,400	7,200	6,000	6,400
	(*)	(*)	(*)	(*)	(*)	7,900	8,200	7,300	6,900	6,000	8,800	6,900	6,700

¹ Covers all privately financed new family dwelling units. Excludes trailers, dormitories, barracks, converted units, and all federally financed residential building.

² Industrial areas cover entire counties or groups of counties surrounding the central area or cities.

³ Based on contractors' estimates. Represents the cost of labor and materials, and all subcontracted work. Excludes land and development costs.

⁴ Includes permanent units financed by the New York City Housing Authority.

⁵ Area no longer being surveyed.

⁶ Data not available.

Source: These data were compiled by the U. S. Bureau of Labor Statistics in connection with its housing statistics program. Data on private residential building started are based on reports from building-permit issuing offices and from building contractors and others in nonpermit issuing as well as in permit issuing places in the areas shown. Building permit data are corrected for lapsed permits and lag between issuance of permits and the start of construction, by follow-up of construction jobs for which permits have been issued.

TABLE F-8: Estimated Number and Construction Cost of New¹ Urban and Rural Nonfarm Dwelling Units Started, by Source of Funds (Private and Public)

Year and month	Number of new dwelling units started									Estimated construction cost ² (in thousands)		
	All units			Privately financed			Publicly financed			Total	Privately financed	Publicly financed
	Total nonfarm areas	Urban areas	Rural nonfarm areas	Total nonfarm areas	Urban areas	Rural nonfarm areas	Total nonfarm areas	Urban areas	Rural nonfarm areas			
1925 ³	937,000	752,000	185,000	937,000	752,000	185,000	0	0	0	\$4,475,000	\$4,475,000	0
1933 ⁴	93,000	45,000	48,000	93,000	45,000	48,000	0	0	0	285,446	285,446	0
1941 ⁵	715,200	439,582	275,618	619,460	369,465	249,995	95,740	70,117	25,623	2,852,778	2,530,765	\$322,013
1944 ⁶	169,400	114,875	54,525	138,779	93,173	45,606	30,621	21,702	8,919	560,715	483,231	77,484
1946	776,200	493,963	282,237	662,526	395,642	266,884	113,674	98,321	15,353	4,103,251	3,713,776	389,475
1946: September	65,800	41,159	24,641	57,592	33,640	23,952	8,208	7,519	689	344,438	323,770	20,668
October	58,200	34,638	23,562	56,492	33,304	23,188	1,708	1,334	374	327,920	317,304	10,616
November	47,800	28,733	19,067	47,678	28,611	19,067	122	122	0	276,179	275,897	282
December	39,300	23,662	15,638	39,268	23,662	15,606	32	0	32	231,943	231,870	73
1947: January	40,100	24,611	15,489	38,998	23,527	15,471	1,102	1,084	18	235,105	227,682	7,423
February	44,100	25,774	18,326	44,100	25,774	18,326	0	0	0	244,755	244,755	0
March	59,000	33,674	25,326	58,425	33,183	25,242	575	491	84	328,720	326,456	2,264
April	69,500	38,858	30,642	68,724	38,530	30,194	776	328	448	393,234	388,155	5,079
May	72,700	39,376	33,324	72,544	39,376	33,168	156	0	156	418,008	416,875	1,133
June	79,400	43,005	36,395	76,988	42,000	34,988	2,412	1,005	1,407	487,205	469,700	17,505
July	80,100	43,962	36,138	80,064	43,926	36,138	36	36	0	488,925	488,610	315
August	86,100	47,002	39,008	85,461	46,900	38,561	639	192	447	527,415	521,550	5,865
September	92,000	49,313	42,687	91,725	49,038	42,687	275	275	0	561,926	559,980	1,946

¹ Covers both permanent and temporary new family dwelling units. Includes those family dwelling units in the Federal temporary re-use housing program provided by dismantling temporary war structures and their re-erection at new sites.

² Private construction costs are based on permit valuations, adjusted for understatement of costs shown on permit applications. Public construction

costs are based on contract values or estimated construction costs for individual projects.

³ Housing peak year.

⁴ Depression, low year.

⁵ Recovery peak year prior to war-time limitations.

⁶ Last full year under wartime control.